ADRIA

USER MANUAL

Inspiration for *your* adventures.

ADRIA MOTORHOMES

EN

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1 Introduction

You want to get to know new horizons? Count on us to help you!
Congratulations on your new ***ADRIA*** motorhome.
We have designed and built your vehicle so that travelling with your "home away from home" will be very enjoyable.

1.1 Before the trip

- Take your time and read this operating manual on one of the comfortable seats of your vehicle.
  - This operating manual also contains surprising innovations for experienced users because the ***ADRIA*** design team does not tolerate technical standstill.
- Please pay particular attention to the “Safety” chapter (Chapter 2).
  - Your own health and that of your passengers can depend on your familiarisation with the safety regulations and your adequate reaction to critical situations.
- Please also pay attention to the separate instruction manuals for optional equipment and appliances as well as accessories.
- If your ***ADRIA*** vehicle has optional equipment (such as light-metal rims, air suspension, etc.), please observe the enclosed special approvals and the associated regulations.

1.2 Information on this instruction manual

- Please understand that we reserve the right to alter the technical system, the form and the equipment. Our vehicles are being continuously developed. Therefore, no claims can be made against ***ADRIA*** on the basis of the contents of this instruction manual. The equipment which was known and included at the time of going to press is described in this manual. This instruction manual is valid only insofar as the vehicle corresponds to the state of the equipment described therein.
- The equipment fitted on the vehicle may differ from model to model (standard equipment, optional equipment and accessories). The standard equipment is described in this instruction manual. In this instruction manual, you will also find descriptions of the optional equipment and accessories insofar as explanations are required. Please also pay attention to the enclosed separate operating manuals provided by the manufacturers of the optional equipment or accessory.
- For instructions on the operation and use of the basic vehicle, always refer to the basic vehicle instruction manual.
- Reproduction, copying and translation, including extracts, are not permitted without the explicit approval of ***ADRIA***.
- ***ADRIA*** will not be held responsible for damage to the vehicle resulting from the non-observance of the instruction manual.

Date of issue: 19 March 2024

1.3 Warranty, service and repair

- Please contact your local ***ADRIA*** dealer for all service and repair work as well as special questions.
  - The staff at your authorised specialist workshop will be happy to advise and assist.
  - Only original parts ensure the quality and operational readiness of your vehicle.
  - If service work is neglected or performed incorrectly, we will be unable to meet our warranty obligations according to our warranty conditions.
- Please fill in the following data of your vehicle:
  - These are of special significance when you have questions concerning ordering original parts.
- Check the nameplates for the data of your vehicle.

Vehicle data	
Model:	
Year of manufacture:	
Vehicle identification number:	ZY1 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
Bodywork key number:	_ _ _ _ _

Tab. 1 Vehicle data

We hope you will enjoy your leisure time with your new ***ADRIA*** motorhome beyond all borders.

The Management

2 Safety

2.1 Safety information

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

Note!

We point out explicitly that we will not assume any liability for damage and malfunctions resulting from the non-observance of this instruction manual.

2.1.1 Explanation of symbols

Danger!

Type of danger

➔ Avoidance

This type of safety warning warns of an **imminently pending danger** that could jeopardise the life and health of persons. Non-observance of these safety instructions can cause severe damage to health up to life-threatening or fatal injuries.

Warning!

Type of danger

➔ Avoidance

This type of safety warning warns of a **possible danger for persons**. This type of warning must be exactly followed to prevent hazards to persons or severe material damage.

Caution!

Type of danger

➔ Avoidance

This type of safety warning warns of **possible material damage**. This type of warning must be exactly followed to prevent material damage.

Note!

Note

Notes of this kind provide additional information with respect to **technical requirements**. This type of information facilitates the handling of the vehicle for the user.

2.2 General safety instructions

- Safely store all objects before starting to drive. Securely close all flaps, doors, windows and hatches. Keep liquids in leak-proof containers.
- When staying in the vehicle, always keep the forced ventilation and the mushroom ventilator open and never covered, as there is a risk of suffocation by increased carbon monoxide.
- Always keep the instruction manuals for the vehicle and all installed appliances (e.g. cooker, refrigerator, toilet) and additional equipment (e.g. bicycle racks) in the vehicle and observe the instructions given there.
- Never leave children in the vehicle unattended.
- Pay attention to the vehicle height while driving.
- When leaving the vehicle, securely close all windows, doors and skylights.
- Pay attention to the clearance height of the entrance door.
- In the interests of safety, the replacement of any part of an appliance must conform to the appliance manufacturer's specifications and should be carried out by the manufacturer or his authorised representative.

2.3 Safety instructions for driving on public roads

- The vehicle must be officially registered.
- The driver of the vehicle must have the required driving license.
- If accessories are fitted, this will alter the dimensions, the total weight and the handling of the vehicle. Some of this equipment is subject to entry in the vehicle documents.
- When loading the vehicle, pay attention to the gross weight rating and the gross axle weight rating (see motor vehicle registration certificate, part I)
- Distribute the additional load evenly within the vehicle (Chapter 5.1).
- Check the tyre pressure and tighten the wheel nuts before starting to drive.
  Check the tightness of the wheel nuts after 50 km and then in regular intervals.
- Check the function of the brakes and the signal and lighting system.
- Empty the waste water tank.
- Close all doors, cupboard doors, drawers and flaps as well as all windows and skylights. Snap the refrigerator door securing device into place.
- Safely stow away the sink board (optional), the loft bed ladder (optional), the table and/or other loose pieces of equipment.
- Retract or fold down antennas (optional).
- Switch off the awning light (optional).
- Retract the entrance step (optional).
- Close and lock all outer doors and flaps.
- In winter, clear the roof from snow and ice before starting the journey.
- Persons as well as pets must be seated on seats equipped with suitable restraining devices while travelling in the vehicle.
- Vehicles from 3.5 T to 7.5 T are designed for a maximum speed of 100 kph. This maximum speed must not be exceeded, not even when a higher speed is allowed in the country being visited.

- When parking the vehicle, apply the parking brake up to the maximum possible end position.
- Place wheel chocks (optional) under the wheels when parking the vehicle on inclines or slopes.
- Have the vehicle brake system checked and repaired by an authorised workshop only.
- When the vehicle is transported by rail or on a lorry, it must be loaded in the driving direction.

2.3.1 Driving your motorhome

- Drive according to your abilities taking the larger dimensions and the higher weight of the vehicle into consideration. You need time for familiarisation.
- Always take corners in a large radius and slowly. The cornering behaviour as compared with a passenger car changes because of the length of the vehicle and its weight.
- On slip lanes and at crossroads the vehicle's acceleration is significantly lower than that of a passenger car.
- Due to the higher weight, the vehicle braking distance is much longer than that of a passenger car.
- Pay attention to the greater height of the vehicle at gateways and trees on the side of the road.
- When driving in reverse, always have a second person assist you.
- Due to the vehicle height, the vehicle is more sensitive to crosswind.

2.4 Official technical inspections

2.4.1 Motorhome - general inspections

Note!

Please observe the regulations for the applicable country of registration.

2.4.2 Checking the gas system

The liquefied gas system was inspected at the factory by a technical expert. The gas system must be inspected again every two years and after making any modifications and repairs. Always have a gas leak test performed on this occasion. The vehicle operator is responsible for initiating the inspection. When the vehicle is handed over to the operator, she/he must be informed in writing of her/his duty to have the gas system inspected. The correct condition of the gas system is confirmed with a gas inspection certificate and possibly, depending on national regulations, an associated gas inspection sticker.

2.4.3 Emergency equipment to be carried in the vehicle

The following emergency equipment (optional) must be carried in the vehicles at all times:

- First-aid kit
- Hazard warning triangle
- On vehicles above 3.5 T, the operator is also obliged to have a warning light on the vehicle.
- A wheel chock must also be carried along in vehicles above 4.0 T.
- It is recommended to carry along a warning vest for every passenger in the vehicles.

The regulations of the respective country must be observed. Contact the automobile association of the respective country for information.

2.5 Safety instructions for the gas system

Danger!

Poisoning by gas

If it smells of gas or you suspect that gas is escaping, perform the following:

➔ Clear the danger area!
➔ Close the shut-off valve on the gas cylinder!
➔ Avoid ignition sources and open flames and do not smoke!
➔ Provide ventilation through the rooms!
➔ Inform the camping site superintendent and the fire service if necessary!

Danger!

Risk of explosion

When refuelling the vehicle, inside multi-storey car parks, in garages or on ferries, none of the gas-powered or fuel-powered appliances of the vehicle must be operated.

➔ Close all quick-action stop valves and the the gas cylinder valve.
➔ Switch off all gas-powered and fuel-powered appliances using the control panel before refuelling the vehicle and when entering multi-storey car parks, garages or ferries.
➔ Make sure that a remote activation of the gas-powered or fuel-powered appliances (e.g. using the Truma App) is not possible.

Danger!

Risk of suffocation

➔ Never cover the forced ventilation in the skylights and in the floor area nor the mush-room ventilators in order to ensure continuous exchange of air in the vehicle.
Attention: Snowfall in winter!

Warning!

Injuries or material damage

- ➔ Subsequently installed, gas-operated additional appliances must be designed for an operating pressure of 30 mbar.
- ➔ The liquefied gas system was inspected at the factory by a technical expert.
- ➔ The gas system must be inspected again every two years and after making any modifications and repairs (Chapter 2.4.2).
- ➔ Installations and modifications to the gas system may be performed only by an authorised workshop.

Note!

The gas system may be put into service again only after inspection by a technical expert!

2.5.1 Gas cooker

Danger!

Risk of suffocation

- ➔ Under normal operating conditions, using the gas cooker poses an acute danger to life caused by a lack of oxygen and the odourless and toxic carbon monoxide (CO) which may be produced!
- ➔ Always ensure good ventilation when the gas cooker is in operation. Always keep a window, a roof hood or the doors open.
- ➔ Never use the gas cooker for heating.

Danger!

Risk of poisoning

- ➔ If a flame of the gas cooker extinguishes, unburned gas flows out for a short time until the flame failure device reacts. Combined with oxygen, this gas produces an explosive atmosphere inside the vehicle!
- ➔ Watch the flames while using the cooker!
- ➔ When finished, shut the respective quick-action stop valve.

2.5.2 Gas locker

Check each time before using the gas:

- ➔ Store the gas cylinders exclusively in the gas locker. They must stand upright and be fastened so that they are unable to turn or tilt.
- ➔ The gas locker must be sealed against the interior of the vehicle and must have a vent hole in or directly above the floor plate. This vent hole must have a minimum cross-section of 100 cm² and must not be covered.
- ➔ Use only pressure regulators with safety valves! Other regulators are not permitted!
- ➔ Carefully connect the regulator on the gas cylinder by hand. The screw connections on the gas regulator have left-hand threads. Do not use tools such as wrenches or pliers.

- ➔ Exception: The high-pressure hoses of the Truma MonoControl CS should be tightened with the plastic wrench provided with the equipment.
- ➔ Use a de-icing system (such as the accessory EisEx) for the regulator when temperatures are below 5 °C.
- ➔ Do not operate or store any current-carrying devices (e.g. batteries) or devices that could be a source of ignition in the gas locker.
- ➔ Electric lines routed through the gas locker have to be insulated and must not be connected with terminals; have the work performed by an authorised workshop.
- ➔ Do not use the gas locker as storage space.
- ➔ Secure the gas locker against unauthorized access.

2.5.3 Gas appliances in general

Pay attention to the following when operating the gas system:

- ➔ Gas appliances must be turned off while the vehicle is in motion, unless they are designed for on-road use. En-route heating must comply with UNECE Regulation 122.
- ➔ The regulators and the exhaust gas routing must be inspected every two years! 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 has to initiate the inspection.
- ➔ The exhaust gas pipe must be fitted tightly to both the gas heating and the cowl, and must be sealed. It may not show any evidence of damage.
- ➔ The exhaust gas routing of the gas heating must be installed ascending over its complete length and fitted tightly with clamps. If required, install exhaust gas pipe supports.
- ➔ Before putting the gas heating into service, always clear dirt and snow from the cowl and the combustion air inlets. This prevents increased, unacceptable carbon monoxide content in the exhaust gas.
- ➔ Radiant heaters and appliances drawing combustion air from the interior of the vehicle are not to be used for heating the vehicle!
- ➔ When switching on gas appliances which require the control knob to be pressed for lighting (e.g. gas cooker), make sure that it springs back automatically immediately after releasing it.
- ➔ If no gas is being consumed during the journey, the valve on the gas cylinders must be closed.
- ➔ Close the respective quick-action stop valve when gas-operated appliances are not used.
- ➔ Close the valve on the gas cylinder when the vehicle will not be used for a longer period.
- ➔ Operate the gas system only with propane gas, butane gas or a mixture of both. Propane gas is capable of gasification down to -42 °C, whereas butane gas gasifies only to approx. 0 °C.
- ➔ Gas appliances are not to be operated during refuelling, in multi-storey car parks, in a garage or on a ferry.
- ➔ Observe the relevant regulations in foreign countries!

2.6 Safety instructions for the electrical system

Pay attention to the following when operating the electrical system:

- ➔ Installations and modifications of the electrical system may only be performed by qualified personnel.
- ➔ Prior to carrying out work on the electrical system, switch off all appliances and lights, disconnect the battery and disconnect the 230-V power cable from the mains.
- ➔ Replace defective fuses only when the cause of the defect is known and has been remedied. Only use original fuses with the rating specified in the respective manufacturer's instruction manual.
- ➔ Do not bridge or repair fuses.
- ➔ Only using the battery disconnect switch to isolate the circuits may cause damage to the electrical devices.
- ➔ Only use the battery disconnect switch in case of emergency (e.g. accident) to disconnect the living area battery from the electrical circuits.
- ➔ If you want to disconnect the living area battery from the electrical circuits while the vehicle is out of service, first turn off the main button on the control panel and then use the battery disconnect switch.

2.6.1 Safety instructions for the emergency power generator (optional)

Observe the following when operating emergency power generators:

- ➔ Voltage variations during operation with an emergency power generator must be avoided to prevent damage to the electrical system and the electrical appliances.

For further information, please refer to the manufacturer's separate operating instructions.

2.7 Fire safety

2.7.1 General fire safety

Danger!

Fire risk

- ➔ Only authorised and qualified personnel may perform service work and modifications to the gas system and the electrical system.
- ➔ Never leave children in the vehicle unattended.
- ➔ Do not use portable heating or cooking appliances.
- ➔ Keep flammable materials clear of cooking and heating appliances.
- ➔ Acquaint yourself with the position and operation of the emergency exits in the vehicle.
- ➔ Always keep escape routes clear.
- ➔ Empty ashtrays into the waste bin only when the ashes are cold.
- ➔ When the lighting elements are switched on, maintain a safety distance of at least 30 cm from combustible objects.

Note!

Always have a dry powder fire extinguisher (optional) filled with at least 1 kg of dry powder on your vehicle.

- ➔ The fire extinguisher must be close at hand.
- ➔ Read the instruction manual carefully and make sure it is readily available when needed on board.
- ➔ Have the fire extinguisher checked at regular intervals by qualified personnel; observe the test seal.

2.7.2 What to do in the case of fire

Correct behaviour:

- ➔ Evacuate all passengers.
- ➔ Close the valve on the gas cylinder!
- ➔ Switch off the electrical power supply; disconnect the vehicle from the mains.
- ➔ Call the fire brigade, sound the alarm.
- ➔ Fight the fire, if possible.

2.8 Safety instructions for the roof

Warning!

Risk of injury and of damage to the vehicle roof

- ➔ Standing or walking on the elevation of the alcove or the front opening hood of partially integrated vehicles is not allowed! Walking on the roof of the vehicle is permissible only in the rear area.
- ➔ Do not walk on roof structures or roof fittings, e.g.. roof hoods, roof railings etc.
- ➔ Clear snow and ice from the roof and from the skylights. Use a ladder which is placed against the roof edge for this purpose.

2.9 Safety instructions for rear carrier systems (optional)

Warning!

Risk of injury and damage to the vehicle

- ➔ Pay attention to the statutory regulations for the installation of a rear carrier.
- ➔ When the rear lighting of the vehicle is covered, a second set of lights must be installed.
- ➔ Do not exceed the permissible carrying weight of the rear carrier.
- ➔ The load must not project by more than 40 cm on the sides. Do not allow sharp or pointed objects to project.
- ➔ The load must be stored safely and specially secured against falling down.
- ➔ When the rear carrier is used, the load distribution of the vehicle as well as its drive and brake behaviour change.

Note!

Have the installation of a rear carrier performed by an authorised workshop only. Ask your ***ADRIA*** dealer for advice.

2.10 Environmental notes

For the protection of our environment, always pay attention to the following:

- ➔ Always turn off the engine when the vehicle stands still. The operating temperature is reached most quickly while driving.
- ➔ **Never** dispose of any kind of waste water and waste in the open countryside.
- ➔ Empty the waste water tank and the toilet only at special waste disposal stations. These waste disposal stations are available at camping sites. Request information from local authorities.
- ➔ Use environmentally-friendly chemical additives for the toilet.
- ➔ Separate household waste and dispose of this waste in special waste disposal stations.
- ➔ When staying in towns and communities for longer periods, always stay at special car parks for motorhomes. Obtain information about car parks and camping sites in time before starting the journey.
- ➔ Always collect waste oil, lubricants and cleaning agent in suitable containers and dispose of them properly.

2.11 Disposal / scrapping 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 all national and regional provisions as well as any relevant guidelines/directives.

3 Description & equipment

3.1 Bodywork of the vehicle

The durability of the vehicle body is achieved through the Comprex body construction. Glass-fibre reinforced plastic (GRP) and aluminium are used to reduce weight in 3 main layers with a total thickness of up to 40 mm (30 mm for wall and roof).

- Outer skin: GRP (glass-fibre reinforced plastic) or aluminium sheet
- Insulation: EPS (expanded polystyrene) or XPS (extruded polystyrene)
- Inner wall: Plywood panel with treated surface

All the layers together form a solid body construction with very good insulation properties. The layers are joined together using special adhesives and exceptional joining technology. This structure provides optimal thermal and water insulation combined with high mechanical strength.

To improve road safety, a 3rd brake light is installed in the upper rear area.

3.2 Gas locker

The lockable gas cylinder compartment is sealed and insulated with respect to the interior (Chapter 11.2).

3.3 Interior fittings

All pieces of furniture are made from high-quality materials and securely attached. Sufficient storage space is available in the living area and in the kitchen unit.

All flaps, cabinet doors and drawers are equipped with secure locks and fittings that prevent unintentional opening.

The furniture surfaces can be easily cleaned with commercially available cleaning agents (Chapter 19.2).

Depending on the model, the vehicle has firmly installed beds and/or seating groups that can be easily converted for sleeping
(Chapter 9).

3.4 Kitchen

The kitchen unit consists of a hob, an oven (optional), a microwave oven (optional), a sink and a refrigerator/freezer (Chapter 15).

Adequate storage space is provided.

An extractor fan with or without light above the kitchen unit is available as an optional equipment.

3.5 Bathroom unit

Each vehicle has a bathroom unit (Chapter 8.14) with shower, sink and toilet (Chapter 16). The folding door, swinging door or curtain must be closed when taking a shower.

3.6 Heating

The vehicle is equipped with a heater with hot-air blower or hot water heating (Chapter 13).

3.7 Water and waste water

The vehicle is equipped with a fresh water tank and a waste water tank (Chapter 12.1).

4 Preparing for the first use

4.1 Registering the vehicle

Before the first journey, the vehicle must be registered according to national regulations and a license plate fitted. Vehicles may be operated in road traffic only when insurance cover exists. The vehicle has an EU type approval.

4.2 Using the vehicle for first the time

Warning!

Make sure to follow the safety instructions

- ➔ Carefully read and follow the safety instructions (Chapter 2.1) before putting the vehicle into service.
- ➔ Insurance coverage and warranty claims to the manufacturer become void when the safety instructions are not observed and followed.

Warning!

Risk of accident

- ➔ After the first 50 km, retighten the wheel nuts and then regularly check the seating of the wheel nuts.
- ➔ Check the tyre pressure before each journey.

Pay attention to the following when putting the vehicle into service:

- ➔ Familiarise yourself with your vehicle before the first journey.
- ➔ Get used to the driving characteristics and dimensions of your vehicle during a short weekend trip.
- ➔ Drive slowly and carefully in the beginning.

5 Before setting off

5.1 Loading the vehicle

Warning!

Risk of injury and severe damage to the vehicle

When a tyre bursts, the vehicle can get out of control.

➔ Do not exceed the maximum gross vehicle weight.

➔ Check the tyre pressure (Chapter 22.2) at regular intervals. Tyres can burst when the tyre pressure is too low.

Warning!

Danger of overloading

➔ The maximum gross vehicle weight entered in the vehicle documents must not be exceeded. Tyres can also burst when the vehicle is overloaded.

➔ A warranty claim to the manufacturer and the insurance coverage become void.

Pay attention to the following when loading the vehicle:

- Unladen weight = mass in running condition according to EN 1646-2 (Chapter 22.3)
- Additional equipment installed in the factory and options increase the unladen weight and reduce the additional load.
- Determine the maximum additional load according to part 1 of the registration certificate and the list in the "Technical data" (Chapter 22.3).
- The additional load covers all other persons and the luggage.
- On vehicles with standard equipment, the outside of the roof and the rear area are not to be loaded.
  - Never exceed a height of 4 m and a width of 2.55 m with any additional attachments.
  - Attach and secure the roof and rear loads so that they do not slip and so that they are not affected by the wind and so that they are streamlined. Do not use rubber expanders!
- In order not to endanger other road users, objects must not project beyond the vehicle silhouette on the side or rear.
  - Do not overload the vehicle. For weight information and Tables, see Chapter 22.3 and the registration certificate, part I.
- Pay attention to the correct axle load distribution. Road holding and tyre wear are directly affected by the axle load. Pay attention to the maximum axle loads (see registration certificate part I).
- Load the vehicle evenly on the right and left. The driving characteristics deteriorate when loading is uneven.
- Store heavy objects (e.g. tinned food, cutlery, dishes) in low-lying storage compartments and secure them against slipping.

- Stack light objects, e.g. clothes, in higher storage compartments or in the compartments below the seats.
- Always keep liquids in leak-proof containers in low-lying storage compartments.
- Do not load the bike rack (optional) with more than 2 or 3 bikes (50 kg maximum).

Note!

Weigh the completely loaded vehicle on public scales before starting your journey.

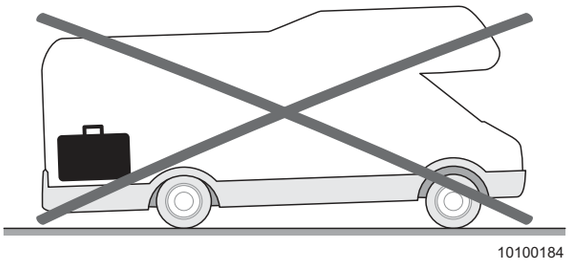

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Figure 1 Motorhome loaded incorrectly

MOTORHOME LOADED INCORRECTLY!

- Do not stow heavy objects as shown (Figure 1).
- If the load is spread unevenly, instabilities or loss of control may be the consequence.

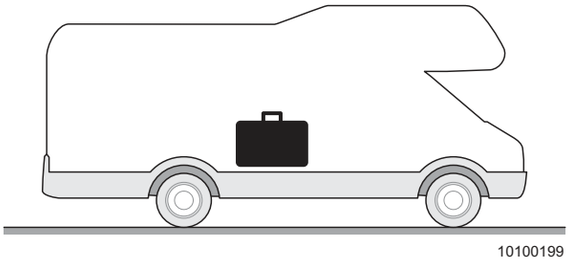

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Figure 2 Motorhome loaded correctly

MOTORHOME LOADED CORRECTLY!

- Store objects between the axles, if possible.
- Store heavy objects at lower positions.
- Store light objects at upper positions.

Note!

Pay attention to the following when installing rear carriers:

- Attachment and securing of the load as specified
- Allowable load-carrying capacity of the vehicle and axle(s)
- Change of axle load distribution
- Change of driving and braking behaviour of the vehicle
- Change of overall length

5.2 Spare keys

The following information is required for ordering a spare key:

Key for	Required information	To be obtained from
Base vehicle	• Vehicle identification number • Registration certificate part II • Code card, if applicable	Service department of basic vehicle manufacturer
Bodywork (doors and flaps)	• Registration certificate part II • Key number	***ADRIA*** Service department

Tab. 2 Spare keys

5.3 General check before starting to drive

Warning!

Hazards and damage due to unsecured load

➔ After having driven for a few kilometres, check the additional load is stowed in slip-free manner in the vehicle.

Caution!

Damage from objects not safely stowed

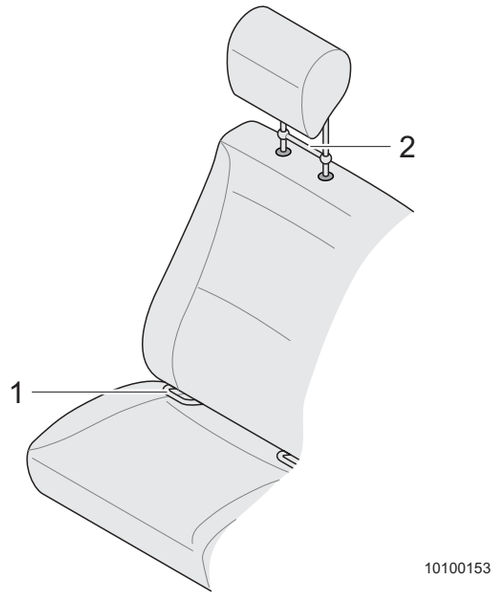
➔ Safely stow loose items like chopping or draining boards during the journey.

Go through the checklists (Chapter 23) before starting to drive.

5.4 ISOFIX fastening system for child car seats (optional)

Some models are equipped with the ISOFIX fastening system for child car seats.

Please select the appropriate car seat for your child from the table (Tab. 3).



1 Lower mounting bracket
2 Mounting bracket for upper safety belt

Figure 3 ISOFIX fastening system

Fasten child car seat:

➔ Snap the child car seat connector arms into the mounting brackets (Figure 3/1).

➔ Fasten the upper safety belt to the mounting bracket at the headrest (Figure 3/2).

	For children from ...		
	Weight	**Age (approx.)**	**Height (approx.)**
Standard groups			
Group 0	> 0 to 10 kg	Newborn to 1 year	to 75 cm
Group I	> 9 to 18 kg	1 to 4.5 years	75 to 100 cm
Group II	15 to 25 kg	3.5 to 7 years	to 125 cm
Group III	25 to 36 kg	7 to 12 years	to 150 cm
Seats flexible in size			
Group 0+	> 0 to 13 kg	Newborn to 2 years	to 90 cm
Group 0/I	> 0 to 18 kg	Newborn to 5 years	to 100 cm
Group I/II	> 9 to 25 kg	1 to 7 years	72 to 125 cm
Group I/II/III	> 9 to 36 kg	1 to 12 years	75 to 150 cm
Group II/III	> 15 to 36 kg	3.5 to 12 years	95 to 150 cm
Height, age and weight: The standard group only determines the weight. Age and height are reference values. Children grow with different speed and their weight also varies at the same age. The important thing is that the child car seat fits your child.			

Tab. 3 ISOFIX reference table

5.5 Additional air suspension (optional)

Depending on the model, some vehicles have additional air suspension. It requires only minor cleaning and no special maintenance.

5.5.1 SSA air suspension

The SSA air suspension system is used to raise or lower the vehicle's rear axle when the vehicle is heavily loaded and parked on a ground that is not level.

Danger!

Danger to life from getting trapped and crushed when lowering the vehicle

People located under the vehicle or between the wheels while the vehicle is lowered may be fatally injured.

➔ No person must be in the danger zone during the lowering process.

Warning!

Risk of accident and severe damage to the vehicle

Alterations of the air suspension system can change the driving characteristics of the vehicle and lead to accidents.

➔ The air suspension system installed at the factory must not be altered.

All pressure gauges and valves for the SSA air suspension are located on the side of the driver's seat.

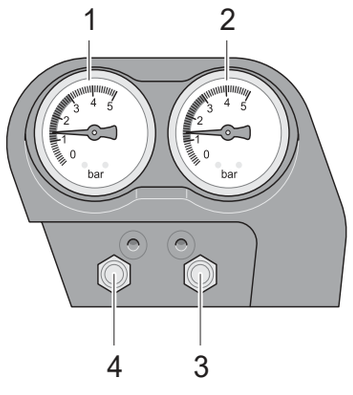


Figure 4 SSA air suspension

1 Pressure gauge of the left air spring
2 Pressure gauge of the right air spring
3 Valve of the right air spring
4 Valve of the left air spring

Caution!

Risk of accident due to incorrect pressure settings for the air suspension

If the pressure for the air suspension does not match the specified values, the driving characteristics may deteriorate.

- ➔ Minimum pressure in the air suspension: 0.8 bar
- ➔ Maximum pressure in the air suspension: 3.0 bar
- ➔ Maximum pressure difference between the right and left side: 0.5 bar

Checking the pressure of the air suspension system:

- ➔ Read the pressure for the respective spring at the corresponding pressure gauge (Figure 4/1 and Figure 4/2).
- ➔ Correct the respective pressure if it does not match the values specified above.

Raising or lowering the rear axle:

If the vehicle is heavily loaded, raise the rear axle. Once the load is removed, lower the rear axle again.

- ➔ Increasing the pressure in the air springs:
  Use a compressor (at a filling station or a 12-volt hand-held compressor) to fill air into the valves (Figure 4/3 and Figure 4/4) until the vehicle is level.
- ➔ Lowering the pressure in the air springs:
  Release air from the respective valve until the vehicle is level.

Note!

After changing the load, consider adjusting the air suspension.

5.5.2 AL-KO air suspension

Danger!

Danger to life from getting trapped and crushed when lowering the vehicle

People located under the vehicle or between the wheels while the vehicle is lowered may be fatally injured.

- ➔ No person must be in the danger zone during the lowering process.

Danger!

Danger to life when lifting the vehicle with a jack or a vehicle hoist

When the vehicle is raised manually with a jack or a vehicle hoist, the air suspension system will automatically adjust the pressure. This may cause the vehicle to slip or tip over. This may cause fatal injuries.

- ➔ Deactivate the air suspension system before lifting the vehicle manually with a jack or a vehicle hoist.

Warning!

Risk of accident and severe damage to the vehicle

Alterations of the air suspension system can change the driving characteristics of the vehicle and lead to accidents.

➔ The air suspension system installed at the factory must not be altered.

- Only lift or lower the vehicle while the vehicle is at standstill or moving with a maximum speed of 25 kph.
- Before starting the lifting or lowering while the vehicle is at standstill:
  - Secure the vehicle against rolling away.
  - Make sure that there is no danger to people and/or objects.
- In order to avoid excessive tension on the chassis when lifting or lowering the vehicle, do not step on the brake pedal.
- It is not allowed to use the air suspension to lift the vehicle for service purposes (e.g. for changing a wheel).
- Before raising one or more axles with a jack or a vehicle hoist, use the stop button (Figure 5/8) to switch off the air suspension .
- Always use a jack or a vehicle hoist for changing wheels or performing any service work.
- Malfunctions or defects of the air suspension system can impair the vehicle's driving stability. This may cause the vehicle to skid or to break away.
- When using snow chains, do not lower the vehicle below driving level.

Warning!

Risk of accident from damage

Damages to or irreversible malfunctions of the air suspension system (indicator light (Figure 5/4) is on) may lead to accidents.

➔ In this case, press the stop button (Figure 5/8). This will deactivate the air suspension system.

➔ Have the vehicle inspected at an authorized specialist workshop immediately.

➔ Drive with particular caution and at significantly reduced speed.

Caution!

Risk of accident, risk of injury or damage to the vehicle

➔ Before raising or lowering the vehicle, make sure that there is enough clearance to the sides, above and below the vehicle.

- The air suspension is ready for operation if the vehicle ignition is switched on.
- At speeds above 25 kph, the air suspension system will no longer respond to the remote control. The air suspension system will then maintain the programmed driving level.
- Raising or lowering the vehicle while the handbrake is applied may put excessive strain on the vehicle or cause unusual noise. If the handbrake is released after the vehicle was lowered or raised, the vehicle may move upwards or downwards unexpectedly.

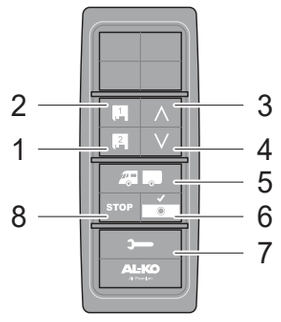


Figure 5 Remote control of the AL-KO air suspension

1 Memory 1
2 Memory 2
3 Raising the driving level
4 Lowering the driving level
5 Display – selected axle
6 Driving level button
7 Indicator light (service indicator)
8 Stop button / service function

Note!

Carefully read the manufacturer's operating instructions before using the air suspension system!

Resetting the vehicle's driving level:

➔ Turn on the ignition. The vehicle must be at a standstill or driving with less than 25 kph for adjusting the air suspension system.

➔ Briefly press the button (Figure 5/6).
The air suspension system is raised or lowered to driving level.

Raising the vehicle:

➔ Turn on the ignition. The vehicle must be at a standstill or driving with less than 25 kph for adjusting the air suspension system.

➔ Press and hold the button (Figure 5/3) until the vehicle is at the required level.

Alternatively:

➔ Briefly press the button (Figure 5/3).
The air suspension system raises the vehicle to the upper end position.

Lowering the vehicle:

➔ Turn on the ignition. The vehicle must be at a standstill or driving with less than 25 kph for adjusting the air suspension system.

➔ Press and hold the button (Figure 5/4) until the vehicle is at the required level.

Alternatively:

➔ Briefly press the button (Figure 5/4).
The air suspension system lowers the vehicle to the lower end position.

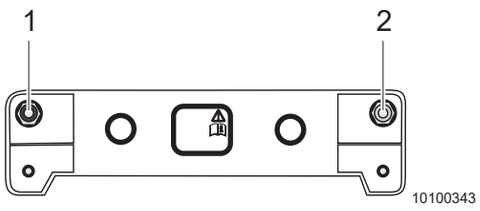


Figure 6 Emergency filling valves

1 Right rear valve
2 Left rear valve

Warning!

Danger caused by system activities

Emergency filling of the air suspension system may lead to unexpected system activities.

➔ Always remove the fuses of the air suspension system before starting an emergency filling.

Note!

The position of the valves on the emergency filling gear reflect the positioning of the individual valves (in the direction of travel). In addition to that, the valves are labelled.

The engine compartment contains a retaining plate with two emergency filling valves. In the event of a failure of the air suspension system, you can use these emergency filling valves to manually fill the springs with air.

Emergency filling of the air suspension system:

➔ Remove the air suspension system's fuses.

➔ Manually fill the springs with air.

➔ Have the vehicle inspected at an authorized specialist workshop immediately.

5.6 Tyres

Warning!

Risk of injury and severe damage to the vehicle

When a tyre bursts, the vehicle can get out of control.

➔ Check the tyre pressure (see Tab. 28 in Chapter 22.2) at regular intervals.

➔ Check the tyres for damage at regular intervals

➔ Comply with minimum tread depth. Observe the regulations of the respective country.

- Regularly check the tyre pressure on cold tyres and correct the tyre pressure as required. Do not forget the spare wheel (optional).
  - If the pressure is too low, the tyre will become very hot. This may cause the tyre to burst when driving at high speed.
- Regularly check the tyres for uneven wear and damages (e.g. penetrated foreign objects, punctures, cuts, cracks and bumps in the tyre sidewalls). Always have the damage repaired by a specialist.

- Regularly check the tread depth.
  - If the tread depth is too small, the risk of aquaplaning rises.
  - Comply with the minimum tread depth. Observe the regulations of the respective country. We recommend to change the tyre if the tread depth is 4 mm or less.
- Always use tyres of the same construction, same brand and same type (summer and winter tyres). Pay attention to the spare wheel.
- Regularly check that the wheel nuts or bolts are tightened properly.
- When the vehicle is put out of service for a longer period, prevent "flat spots" on the tyres.
  - Relieve the load on the tyres by jacking up the vehicle.
  - Move the vehicle every 4 weeks so that the position of the wheels is changed and the load on the tyres is always at different positions.
  - Increase the tyre pressure by 0.3 bar as compared with the stipulated tyre pressure.
- Drive over kerbs slowly and, if possible, at an obtuse angle. Avoid driving over steep and sharp-edged kerbs.
  - Driving into the kerb at a pointed angle or with too much force and hitting on sharp objects such as stones can cause damages to the tyres.
- Drive over high manhole covers at a slow speed.
- Hidden tyre damage is not eliminated by correcting the tyre pressure.
- Do not use second-hand tyres.
  - Tyres age even when they are not driven or driven only a little.
  - We recommend replacing the tyres of the vehicle, including the spare wheel, after 6 years or earlier when the minimum tread depth is reached.

5.7 Electrical lighting

Before starting to drive, check the function of all interior and exterior lighting equipment on the vehicle and replace defective lighting elements.

Make yourself familiar with the replacement of lighting elements before starting to drive (Chapter 21.2).

6 During the journey

Caution!

Risk of injury and damage to the vehicle

During positioning manoeuvres, when driving through passageways, bridges, tunnels and with overhanging branches, observe the dimensions of the vehicle.

Dimensions of the vehicle, see vehicle documents.

Equipment and attachments change the weight and the dimensions.

Vehicles from 3.5 t to 7.5 t are designed for a maximum speed of 100 kph. This maximum speed must not be exceeded, not even when a higher speed is allowed in the country being visited.

Note!

Persons as well as pets must be seated on seats equipped with suitable restraining devices while travelling in the vehicle.

While the motorhome is in motion, nobody may remain in the alcove, the beds and the bathroom unit.

Pay attention to the following during the journey:

- ➔ When starting to drive and still at slow speed, brake shortly to check the function of the brake system and the braking behaviour (exact tracking etc.).
- ➔ Adjust your driving technique to the vehicle size, drive with consideration and foresight.
- ➔ Drive slowly on poor roads.
- ➔ Drive downhill at the same speed as uphill.
- ➔ Remember to change gear in good time.
- ➔ Avoid braking abruptly.
- ➔ Prevent jerky steering as this could cause the vehicle to swerve.
- ➔ When driving over bridges, you have to anticipate crosswind. Because of the vehicle size and height, the vehicle is more sensitive to crosswind than a passenger car.
- ➔ The vehicle can get into a turbulence when overtaking truck-trailer combinations. Light counter-steering compensates this effect.
- ➔ Do not underestimate the length of the vehicle.
- ➔ When turning into a road and when driving around bends, take the larger curve radius of the vehicle into consideration.
- ➔ The braking distance of the vehicle is considerably longer than that of a passenger car. Please increase the safety distance accordingly.
- ➔ When driving in reverse, always have a second person assist you because the rear view mirrors can distort the distances differently.
- ➔ At petrol stations or in garages, switch off all "open flames" operated with gas (also refrigerator or heating).

6.1 Rear-view camera or 360-degree camera (optional)

Your vehicle is equipped with a rear-view camera or a 360-degree camera monitor system. The rear-view camera or the 360-degree camera monitoring system support the driver when reversing and manoeuvring. The rear-view camera is located at the back of the vehicle. There is a camera on each side of the vehicle for the 360-degree camera monitoring system.

Warning!

Risk of accident and damage to the vehicle

Using the rear-view camera or the 360-degree camera to estimate the distance to obstacles (people, vehicles, etc.) is inaccurate and can cause accidents and serious injuries.

- ➔ The camera lens enlarges and distorts the field of view and makes objects appear altered and inaccurate on the screen.
- ➔ Certain objects, such as narrow posts or fencing, may not be displayed, due to the resolution of the screen and in insufficient lighting.
- ➔ The rear-view camera has blind spots in which people and objects cannot be detected.
- ➔ Keep the camera lens clean, free of snow and ice and do not cover it.

Warning!

Risk of accident and damage to the vehicle

Inattentive or unintentional use of the rear-view camera or the 360-degree camera can cause accidents and serious injuries. The system cannot replace the driver's attention.

- ➔ Always adapt your speed and driving style to visibility, weather, road and traffic conditions.
- ➔ Always keep an eye on the parking direction and the surroundings of the vehicle.
- ➔ Do not get distracted by the images displayed on the screen.
- ➔ Always observe the surroundings of the vehicle, as infants, animals and objects are not always captured by the rear-view camera or the 360-degree camera.
- ➔ It is possible that the rear-view camera or the 360-degree camera does not show all areas clearly.
- ➔ Components retrofitted on the rear wall of the vehicle, such as bicycle racks or rear-mounted racks, may impair the function of the rear-view camera or the 360-degree camera.

Caution!

Distorted view through the rear-view camera

The rear-view camera shows only two-dimensional images on the screen. Due to the lack of spatial depth, it may, for example, be difficult or even impossible to recognise protruding objects or recesses in the road surface.

Items such as thin rods, fences, posts or trees may not be detected by the rear-view camera and may cause damage to the vehicle.

The system displays reference lines regardless of the vehicle environment. There is no automatic obstacle detection. The driver has to assess for herself or himself whether the vehicle fits into the parking box or parking space.

Note!

- ➔ ***ADRIA*** recommends practising using the rear-view camera or the 360-degree camera in a place with limited traffic or in a car park in order to become familiar with the system and its functions. Make sure that there is a second person there to assist you.
- ➔ If the rear-view camera or the 360-degree camera fails, have the fault repaired by a specialist workshop.

Activating the rear-view camera:

- ➔ When you shift into reverse gear, the rear-view camera is automatically activated, and you can see the area behind the vehicle either in the rear-view mirror, an additional display or in the radio's touch screen display.

Switching the 360-degree camera monitoring system on and off:

- ➔ The 360-degree camera monitoring system is switched on when the engine starts.
- ➔ The 360-degree camera monitoring system is switched off when the ignition is switched off.

6.2 Parking sensor system (optional)

Your vehicle is equipped with parking sensors. The parking sensors support the driver when parking and manoeuvring. The parking sensors are integrated into the rear bumpers of the vehicle. The parking sensors send and receive ultrasonic waves. During the transit time of the ultrasonic waves (sending, reflecting on obstacles and receiving), the system continuously calculates the distance between the bumper and the obstacle.

Warning!

Risk of accident and damage to the vehicle

Inattentive manoeuvring of the vehicle can cause accidents and serious injuries. The parking sensors cannot replace the driver's attention.

Unintentional vehicle movements can cause serious injuries.

- ➔ Always adjust your speed and driving style to road, traffic, weather, and visibility conditions.
- ➔ The parking sensors have blind spots in which people and objects cannot be detected.
- ➔ Always be careful and look around when you are manoeuvring the vehicle, as small children, animals and objects are not always recognized by the parking sensors.
- ➔ Certain surfaces of objects and clothing do not reflect the parking sensors' signals. The parking sensors will not recognise these objects and people who wear such clothing, or at least not correctly.
- ➔ External sound sources can influence the signals emitted by the parking sensors. Under certain circumstances, people and objects cannot be recognised.

Caution!

Risk of accident and damage to the vehicle due to impaired parking sensors

Various factors can impair the proper functioning of the parking sensors or cause damage to the vehicle and the vehicle surroundings.

- ➔ Objects, e.g. trailer drawbars, thin rods, fences, posts, trees and open or opening luggage compartment flaps may not be detected by the parking sensors and can damage the vehicle.
- ➔ If the parking sensors have already recognised and reported an obstacle and emitted a corresponding warning, it is possible that particularly low or high obstacles can disappear from the measuring range of the parking sensors when the vehicle approaches and are no longer recognised. These objects are therefore no longer reported.
- ➔ Ignoring the parking sensors' warning may lead to significant damage to the vehicle.
- ➔ Shocks, e.g. while entering a parking lot, can cause damages to the parking sensors and change the direction in which they are pointing.
- ➔ Keep the parking sensors clean, free of snow and ice, and do not cover them with stickers or other objects.
- ➔ Repainting the parking sensors may impair their function.
- ➔ When cleaning the parking sensors with a high-pressure cleaner or steam cleaner, only point the nozzle directly at the parking sensors for a very brief period and always keep a distance of more than 10 cm.
- ➔ External sources of noise may trigger the parking sensors by mistake, e.g. caused by rough asphalt, cobblestones, induction loops, construction machinery and background noise from other vehicles.
- ➔ In some cases, water or ice on the parking sensors may be taken for an obstacle.
- ➔ Subsequently mounted components on the rear wall of the vehicle, such as bicycle racks or rear-mounted racks, may impair the function of the parking sensors.

Note!

- ➔ ***ADRIA*** recommends practising using the parking sensors in a place with limited traffic or in a car park in order to become familiar with the system and its functions. Make sure that there is a second person there to assist you.
- ➔ If a parking sensor fails, have this defect repaired by a specialist workshop.

Activating the parking sensors:

- ➔ When you shift into the reverse gear, the parking sensors are automatically activated. The closer you get to an obstacle, the faster the acoustic signal will beep. The acoustic signal sounds continuously when the distance between the vehicle and the obstacle is less than 0.3 m.

6.3 Using a trailer (optional)

Danger!

Danger to life

Carrying persons in a trailer is life-threatening and can be illegal.

➔ Never carry people in a trailer.

Warning!

Danger of accident and injury

Using a trailer inappropriately can lead to accidents and injuries.

➔ Always adapt your speed to the weather, road and traffic conditions.

➔ When driving with your headlights on, adjust the position of the headlights so that oncoming vehicles are not dazzled.

➔ When pulling a trailer with the vehicle, be particularly careful when overtaking other vehicles. Immediately reduce your speed as soon as you feel the trailer starts swinging side-to-side. Never accelerate when the trailer is swinging side-to-side.

➔ When transporting heavy objects, the driving characteristics change because the centre of gravity is shifted. Always adapt your driving style and speed to the circumstances.

➔ Never exceed the maximum permissible axle loads, the permissible drawbar load and the maximum permissible total weight. If these limits are exceeded, the driving characteristics of the vehicle can change. You find these values in the vehicle papers and in the papers for the trailer coupling.

An incorrectly installed or unsuitable trailer coupling may cause the trailer to detach from the vehicle. This can cause injuries or accidents.

➔ Trailer couplings should only be retrofitted by a specialist workshop.

Unsecured or insufficiently secured load can shift or fall from the trailer while driving. This can impair driving stability and lead to accidents.

➔ Secure the load properly.

Incautious coupling or uncoupling of the trailer can lead to accidents or injuries.

➔ While manoeuvring to couple or uncouple a trailer, no other person should be standing between the vehicle and the trailer.

➔ Carry out the coupling or the uncoupling of the trailer with care.

➔ If possible, couple or uncouple the trailer on level ground. When parking on sloping roads, secure the trailer and potentially the vehicle, too, against rolling away (e.g. with wheel chocks).

Warning!

Damage to the vehicle

Incorrect connection of the electrical connection between the vehicle and the trailer can damage the electrical system of the vehicle.

- ➔ Do not exceed the maximum power consumption of the trailer.
- ➔ Never connect the trailer's electrical system directly to the electrical connections of the rear lights or any other unsuitable power sources. Only use the trailer socket to power the trailer.
- ➔ Use only plugs and sockets with the standardized pin assignment.

When lowering or raising the vehicle (e.g. due to a change in the payload or a defective tyre), strong forces act on the trailer coupling and the trailer. A coupled trailer supported by the drawbar support wheel can damage the vehicle or the trailer.

- ➔ Uncouple a trailer supported by the drawbar support wheel from the vehicle.

Incautious coupling or uncoupling of a trailer can damage the vehicle.

- ➔ Trailer with overrun brake: Do not couple or uncouple a trailer with an actuated overrun brake.

Do not grease friction pads on trailers with anti-sway damping. Greased friction pads will no longer have an anti-swaying effect. This anti-swaying effect is only ensured when the tow ball on the vehicle is kept clean and free from grease.

- ➔ Do not lubricate the cup of the AKS safety coupling.
- ➔ Do not lubricate the ball on the tow bar.
- ➔ Make sure the friction pads remain free from oil and grease when lubricating moving parts of the safety coupling.

Note!

- ➔ ***ADRIA*** recommends practising manoeuvring with a coupled trailer in a place with limited traffic or in a car park. Make sure that there is a second person there to assist you.
- ➔ ***ADRIA*** recommends having the vehicle serviced between the prescribed inspection intervals because the strain on the vehicle is higher when frequently towing a trailer.
- ➔ In some countries, an additional fire extinguisher must be carried along on the vehicle if the total weight of the trailer exceeds 2500 kg.
- ➔ Inquire about any special regulations for driving with a trailer in the country in which the vehicle is registered or in the country of travel.

For further information, please refer to the manufacturer's separate operating instructions.

Coupling a trailer:

➔ Position the vehicle as closely and as straight as possible to the trailer. Apply the handbrake and stop the engine.
Try to couple the trailer while the vehicle and the trailer are on level ground.

➔ Release the parking brake of the trailer.
Be careful with trailers parked on a slope. In this case, make sure that the trailer is protected from rolling away by wheel chocks.

➔ Carefully manoeuvre the trailer towards the vehicle, especially on slopes, make sure that the ball mount of the trailer is above the coupling head of the vehicle and couple the trailer.
For trailers with a drawbar support wheel, reduce the drawbar height with the drawbar support wheel so that the ball mount engages on the coupling head.
Make sure that the safety indicator on the coupling shows that the coupling has engaged properly, provided the coupling has such an indicator.

➔ For trailers with an overrun brake, attach the breakaway cable to the trailer coupling.

➔ Insert the plug for the power supply of the trailer into the socket of the vehicle.
If the plug is not compatible with the trailer socket on the vehicle, use a suitable adapter.
The cable for the power supply must run in a loose loop over the drawbar. Make sure that the cable does not drag on the floor and is not strained.

➔ Crank up the drawbar support wheel and clamp it as high as possible in the holder. The support wheel should be aligned parallel to the direction of travel and in the direction of the vehicle body.

➔ Before driving off, check the lighting of the trailer.

Uncoupling a trailer:

➔ Uncouple the trailer on level ground. If this is not possible, use wheel chocks to secure the trailer against rolling away.

➔ Apply the vehicle’s handbrake and turn off the engine.

➔ Apply the parking brake of the trailer.

➔ Unplug the trailer’s power supply plug.

➔ If applicable, take the breakaway cable off the vehicle’s trailer coupling.

➔ Crank down the drawbar support wheel until the wheel touches the ground.

➔ Release the coupling using the handle. With the support of the drawbar support wheel, lift the ball mount off the coupling head until the coupling head is completely free.

➔ Drive the vehicle away.

6.4 Bike rack (optional)

Please also refer to the instructions in Chapter 5.1.

Warning!

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 and the third brake light.
- ➔ Regularly check that all tension belts and brackets are secure and tighten if necessary.
- ➔ Replace any damaged or worn parts of the bike rack immediately.
- ➔ Do not transport tandem bicycles.

Warning!

Damage to the vehicle

Incorrectly loading and unloading 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.
- ➔ Carefully lift the bicycles down from the bike rack.

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. When loaded with bicycles, the total height and width of the vehicle may be larger than usual.

6.5 Roof rack with ladder (optional)

Your vehicle is equipped with a roof rack and a ladder. You can use the roof rack to attach objects to the vehicle roof and transport them.

Please also refer to the instructions in Chapter 5.1.

Warning!

Risk of accident

Loading or mounting the roof rack incorrectly can lead to accidents.

- ➔ The objects you want to transport on the roof must not protrude beyond the vehicle's dimensions.
- ➔ The maximum allowable total width of the load is 2.55 m.
- ➔ Vehicle and load must not exceed a total height of 4 m.
- ➔ If the vehicle is 2.5 or less metres high, it is not allowed to have the load on the roof protrude from the front of the vehicle. The maximum overhang to the rear must not exceed 1.5 m.
- ➔ Securely attach the load to the rack.
- ➔ Regularly check that all tension belts and brackets are secure and tighten if necessary.
- ➔ Replace any damaged or worn parts of the roof rack immediately.
- ➔ Do not exceed the maximum load capacity of the roof rack as specified by the roof rack's manufacturer.
- ➔ Always distribute weight evenly.
- ➔ Do not use bungee cords to tie down the load.

Warning!

Danger of slipping and falling

Being incautious when stepping on the vehicle roof may result in falling off.

- ➔ Take particular care when stepping onto the vehicle roof.
- ➔ When the vehicle roof is wet or covered with ice, the vehicle roof should only be accessed with utmost care and if this is absolutely necessary.

Warning!

Damage to the vehicle

Incorrectly loading and unloading the roof rack can damage the vehicle.

- ➔ Proceed with care when lifting and fastening the load to the roof rack.
- ➔ Proceed with care when lifting the load down from the roof rack.

Note!

- ➔ The roof rack can impair driving characteristics, especially around bends and when braking.
- ➔ The roof rack can change the axle load distribution and the total weight.
- ➔ The vehicle's length is extended by the ladder of the roof rack. The height and width of the vehicle may increase when loaded.

7 After the journey

7.1 Requirements for the parking area

The parking area should be firm and level.

7.2 Pitching the vehicle

A second person is helpful for the following tasks.

Aligning the vehicle:

➔ Align the vehicle horizontally in the driving direction by manoeuvring.

➔ Align the vehicle horizontally crosswise to the driving direction.

– If sufficient room is available, move the vehicle until you have found a horizontal position.

– If this is not possible, use drive-on chocks (optional) underneath the respective wheels.

➔ To prevent the vehicle from swaying, lower the two corner steadies (optional) at the vehicle rear. The crank can be found in the storage space that is accessible from the outside.

➔ Tighten the parking brake to the stop and engage the first gear.

➔ Use the wheel chocks (optional) to secure the vehicle against rolling away.

7.2.1 Corner steadies (optional)

Warning!

Damage to the vehicle

➔ Crank up the corner steadies completely before starting to drive.

– When starting to drive, the chassis or the vehicle bottom could be damaged by extended corner steadies.

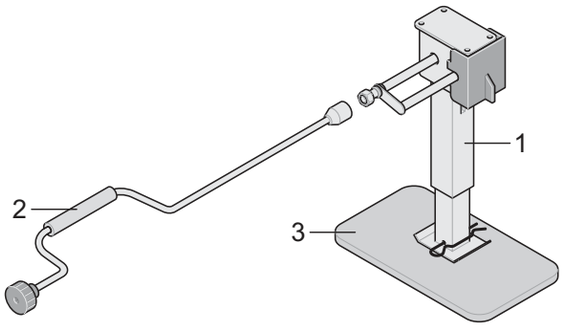
– Torn off corner steadies could jeopardise other road users.

Caution!

Damage to vehicle frame

➔ Do not use the corner steadies for lifting the vehicle. This could result in distortion of chassis and bodywork.

To prevent the vehicle from unnecessary swaying at its parking location, we recommend extending the corner steadies on the vehicle.



1 Corner steady
2 Crank
3 Base

Figure 7 Corner steady

Extending the corner steady:

➔ Place the crank (Figure 7/1) on the corner steady (Figure 7/2).

➔ Turn the crank anticlockwise to extend the corner steady.

Note!

Place a firm substructure (Figure 7/3) underneath the base (Figure 7/2) of the corner steadies when your vehicle is standing on soft ground such as grass or sand. This prevents sinking into the ground and facilitates the retraction of the corner steadies before starting to drive again.

7.2.2 Electrical connection

If 230-V supply is available at your parking area, the electrical appliances can be connected to this voltage supply (Chapter 10.2.1).

Observe the fuse protection of the voltage supply.

All vehicles are equipped with an additional living area battery for the 12-V electric appliances (e.g. lighting, TV, water pump, etc.). The 12-V supply can be switched on and off via the control panel (Chapter 8.8).

7.2.3 Alarm system (optional)

The vehicle can be equipped with an alarm system.

Activating the alarm system:

➔ Lock the vehicle with the vehicle key.
The alarm system is activated as soon as the vehicle is locked.

Deactivating the alarm system:

➔ Unlock the vehicle with the vehicle key.

For further information, please refer to the manufacturer's separate operating instructions.

7.3 Awning (optional)

Caution!

Damage to the awning

Snow, accumulated water or stormy winds can damage the awning.

- ➔ Keep the awning free from snow.
- ➔ Avoid the accumulation of water on the awnings.
- ➔ Retract the awning in case of rain and strong winds.

Caution!

Damage to the vehicle

- ➔ Never move the vehicle with the awning extended.

Note!

Observe the following when using the awning:

- ➔ 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, grease and resin away from the awning fabric.
- ➔ Prevent water from accumulating.
- ➔ 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.
- ➔ Always allow the awning to dry completely before packing it to avoid moulding and staining.

Extending and retracting the awning:

The awning crank is located in the rear garage.

- ➔ Insert the awning crank into the awning mechanism and turn the crank to extend or retract the awning.

8 Living

8.1 Entrance door

Depending on the equipment and the model of the vehicle, the doors may have different types of locks.

8.1.1 Opening/closing the entrance door from the outside

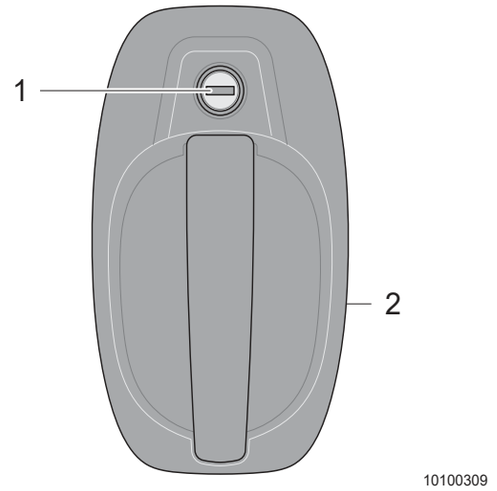


Figure 8 Entrance door, outside (version 1)

1 Door lock
2 Door handle

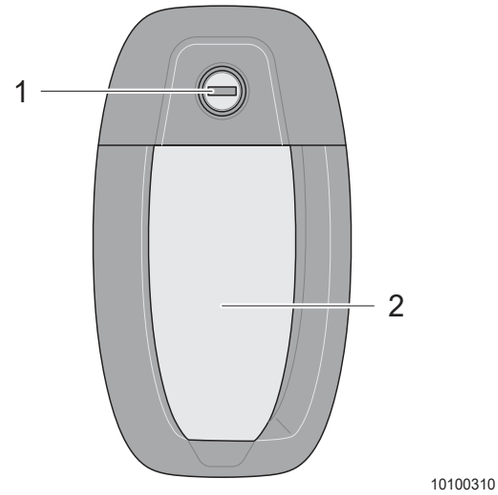


Figure 9 Entrance door, outside (version 2)

1 Door lock
2 Door handle

Opening the door:

➔ Insert the key into the door lock (Figure 8/1 or Figure 9/1) and turn it clockwise as far as it will go.
When you let go of the key it will flick back to its initial position.

➔ Remove the key.

➔ Pull the door handle (Figure 8/2 or Figure 9/2).

Closing the door:

➔ Pull the door shut until the door lock latches.

➔ Insert the key into the door lock (Figure 8/1 or Figure 9/1)

➔ Turn the key anticlockwise as far as it will go. You may have to press lightly against the door. When released, the key returns to the initial position.

➔ Remove the key.

Note!

On some models, the lock of the entrance door is connected to the central locking of the vehicle and can be locked and unlocked using the remote control.

8.1.2 Opening/closing the entrance door from the inside

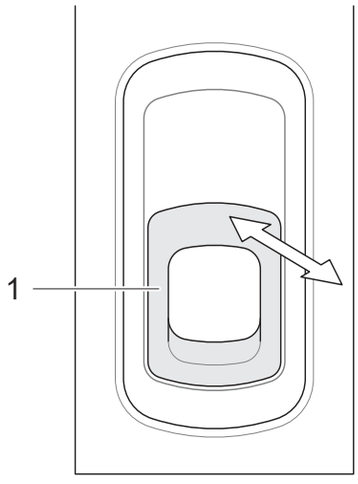


Figure 10 Entrance door, inside (version 1)

1 Door handle

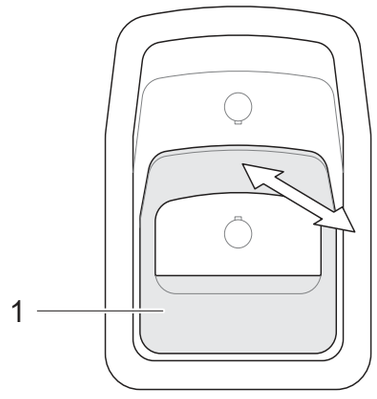


Figure 11 Entrance door, inside (version 2)

1 Door handle

Opening the door:

➔ Pull the handle (Figure 10/1 or Figure 11/1) and open the door.
When you let go of the door handle it will flick back to its initial position.

Closing the door:

➔ Pull on the door to shut it.

Locking the door:

➔ Push in the door handle (Figure 10/1 or Figure 11/1).

Unlocking the door:

➔ Pull the door handle (Figure 10/1 or Figure 11/1).

Note!

When the entrance door is connected to the central locking system (optional equipment), the door can also be locked using the "Lock" button on the instrument panel.

8.2 Ventilating the vehicle

Danger!

Poisoning by gas and carbon monoxide

➔ Always keep the forced ventilation (in the roof hoods and in the floor panel) and the mushroom ventilators open – do not cover them.

Caution!

Possibility of mould formation

➔ Condensation can form under the upholstery during the night. To dry the cushions (foamed material), place the cushions in an upright position and ventilate the vehicle thoroughly.

- Providing adequate and correct ventilation for your vehicle is the best way of ensuring optimum conditions of living comfort.
- Every person releases up to 35 grams of water into the atmosphere each hour just by breathing. Therefore, the living area must be ventilated using the windows and roof hoods depending on the relative humidity.
- Additional water evaporates as a result of cooking or wet clothes.
- 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.

For more information see Chapter “17 Winter camping”.

8.3 Quarter vents

8.3.1 General

The quarter vents of the vehicle have either automatic locking (the quarter vent automatically locks into place in the desired position after opening) or can be continuously adjusted with a knurled screw.

The number of catch bars at the bottom edge of the window varies depending on the window width.

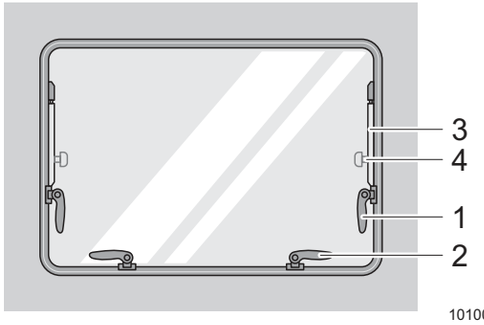


Figure 12 Quarter vents

1 Locking lever on hold-open hinge
2 Locking lever at bottom edge of window
3 Hold-open hinge
4 Knurled screw

Opening the window:

➔ Open the two locking levers (Figure 12/1) on the hold-open hinges (Figure 12/3) first.

➔ Open the locking levers (Figure 12/2) at the bottom edge of the window.

➔ Push the window outwards until it has the desired opening width.

➔ Window with knurled screw: Tighten the knurled screw(s) (Figure 12/4) clockwise when the hold-open hinge has reached the desired opening position.

Closing the window:

➔ Window with knurled screw: Hold the window with one hand and loosen the knurled screw(s) (Figure 12/4) anticlockwise until the window can be moved without force.

➔ Window with automatic hold-open hinges: Open the window until the lock is released.

➔ Close the locking levers on the bottom edge of the window.

➔ Close the locking levers on the hold-open hinges.

8.3.2 Opening/closing the windows

To open and close the quarter vents, open or close all locking levers on the respective quarter vent.

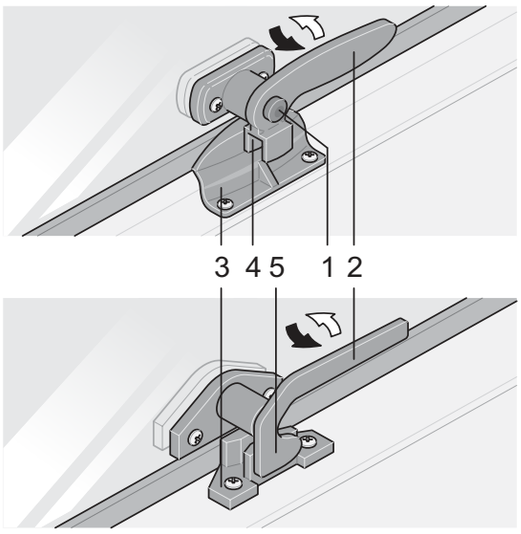


Figure 13 Opening and closing the quarter vents

1 Push-button for locking
2 Locking lever
3 Latch plate
4 Latch
5 Locking catch

Opening the window:

➔ If the locking lever has a push-button for locking the lever (Figure 13/1), press and hold down the push-button.

➔ Turn the locking lever (Figure 13/2) to the middle of the window.

➔ Open all window locks.

➔ Open the window.

Closing the window:

➔ Close the window.

➔ If the locking lever has a push-button for locking the lever (Figure 13/1), press and hold down the push-button.

➔ Turn the locking lever (Figure 13/2) towards the window frame.

➔ The latch (Figure 13/4) of the locking lever closes completely on the inside of the latch plate (Figure 13/3).

8.3.3 Permanent ventilation

Caution!

Cracks in the window

If the locking levers are set to an incorrect position or to varying positions, this may put strain on the window pane. Such strain may cause the window pane to crack.

➔ Only put the locking levers (Figure 12/2) at the lower edge of the window to "permanent ventilation" position.

➔ Make sure that all locking levers at the bottom edges are always set to the same position.

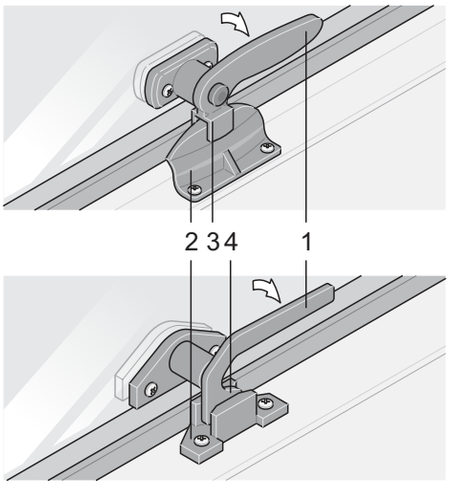


Figure 14 Quarter vent in permanent ventilation position

1 Locking lever
2 Latch plate
3 Latch
4 Locking catch

Setting the window to the "permanent ventilation" position

Locking lever (Figure 14/upper half) **with** push-button locking:

➔ Press and hold the push-button.

➔ Put the locking lever (Figure 14/1) into vertical position.

➔ Push the window outwards slightly.

➔ Turn the locking lever back to its initial position.
When closing the locking levers, make sure that the latch (Figure 14/3) engages around the latch plate (Figure 14/2).

Locking lever (Figure 14/lower half) **without** push-button locking:

➔ Put the locking lever (Figure 14/1) into vertical position.

➔ Push the window outwards slightly.

➔ Turn the locking lever back to its initial position.
When closing the locking levers, make sure that the latch (Figure 14/4) engages inside the latch plate (Figure 14/2).

8.4 Sliding windows

8.4.1 Version 1

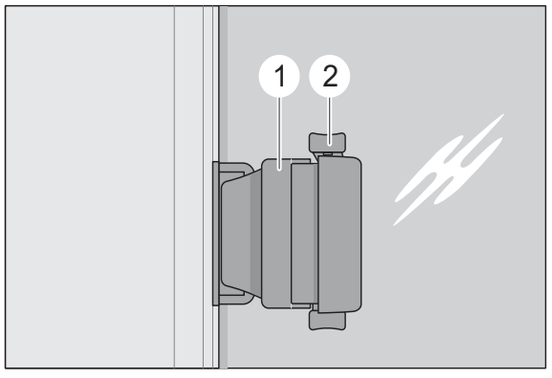


Figure 15 Opening the sliding window

1 Handle
2 Catch

Opening the sliding window:

➔ Push the catch (Figure 15/2) upwards.

➔ Push back the handle (Figure 15/1) and slide the window to the side.

Closing the sliding window:

➔ Push the window until it hits the stop. The handle (Figure 15/1) will latch automatically.

➔ Push the catch (Figure 15/2) down.

8.4.2 Version 2 (only Sonic)

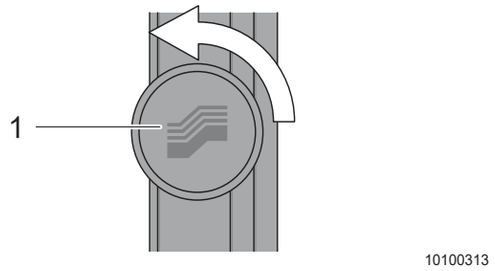


Figure 16 Rotary handle

1 Rotary handle

Opening the sliding window:

➔ Turn the rotary handle (Figure 16/1) anticlockwise and slide the window to the side. When you let go of the rotary handle it will flick back to its initial position.

Closing the sliding window:

➔ Push the window shut until the rotary handle (Figure 16/1) engages.

8.4.3 Electrically operated sliding window (optional only for Sonic)

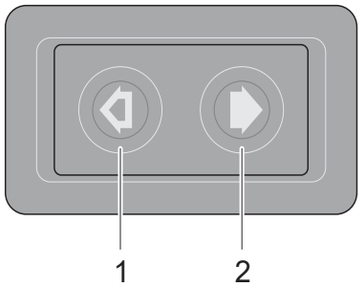


Figure 17 Opening the sliding window

1 Open button
2 Close button

Opening the sliding window:

➔ Press and hold the Open button (Figure 17/1) until the sliding window has reached the desired position.

Closing the sliding window:

➔ Press and hold the Close button (Figure 17/2) until the sliding window is closed.

8.5 Window - blackout blinds and insect screens

8.5.1 Blackout blind and insect screen - version 1

Caution!

Damage to the insect screen and the blackout blind

If you do not hold on to the insect screen while unlocking it, the spring will force it to snap upwards which may cause damage to the insect screen.

➔ When unlocking the screen and the blackout blind, hold the insect screen (Figure 18/3) by the locking handle (Figure 18/4) and carefully move the screen upwards.

The fabric of the insect screen and the blackout blind is sensitive to pressure and can easily be damaged when touched.

➔ Always hold the insect screen and the blackout blind by their handles when opening and closing them.

➔ Do not touch the fabric of the insect screen and the blackout blind with your fingers.

Note!

➔ Only close the blackout blind to a maximum of 75% during direct sunlight. Air must be able to circulate.

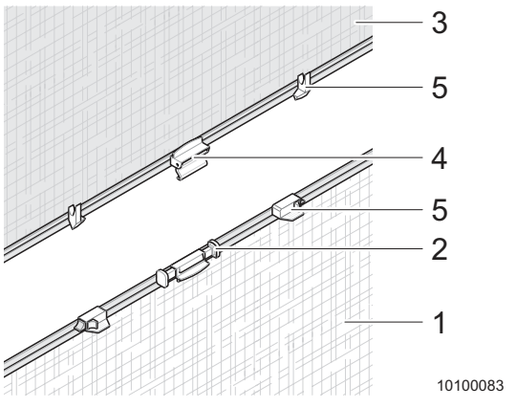


Figure 18 Opening and closing of the blackout blind and insect screen - version 1

1 Blackout blind
2 Push-buttons
3 Insect screen
4 Locking handle
5 Side catches (extra for wide blinds)

The blackout blind (Figure 18/1) is located in the bottom part of the window frame.

The insect screen (Figure 18/3) is installed in the top part of the window frame.

Opening and closing the blackout blind:

➔ Press the two push-buttons (Figure 18/2) together.

➔ Move the blackout blind (Figure 18/1) to the desired position.
When releasing the two push-buttons, the blackout blind is clamped and held in place automatically.
The blackout blind is equipped with a catch which allows you to lock it in different latching positions.

Opening and closing the insect screen:

➔ Pull the insect screen (Figure 18/3) down until the catch (Figure 18/4) engages in the blackout blind (Figure 18/1).
The insect screen can only be used together with the blackout blind.

Separating the insect screen from the blackout blind:

➔ Press the upper catch (Figure 18/4) on screen and blind.

8.5.2 Blackout blind and insect screen - version 2

Caution!

Damage to the insect screen and the blackout blind

If you do not hold on to the insect screen and the blackout blind while unlocking them, the spring will force them to snap upwards which may cause damage to the insect screen and the blackout blind.

➔ When unlocking the screen and the blackout blind, hold them by the handle (Figure 19/1 or Figure 19/2) and carefully move them upwards.

The fabric of the insect screen and the blackout blind is sensitive to pressure and can easily be damaged when touched.

➔ Always hold the insect screen and the blackout blind by their handles when opening and closing them.

➔ Do not touch the fabric of the insect screen and the blackout blind with your fingers.

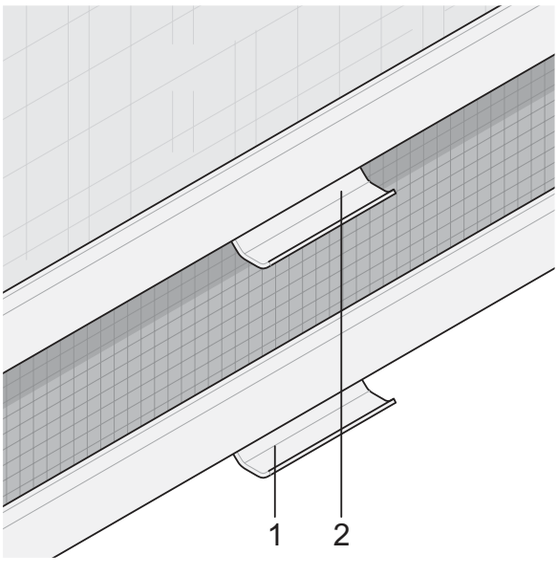


Figure 19 Opening and closing of the blackout blind and insect screen - version 2

1 Insect screen with handle
2 Blackout blind with handle

The blackout blind (Figure 19/2) and the insect screen (Figure 19/1) are located in the upper part of the window frame and can be operated independently from each other.

Opening/closing the insect screen:

➔ Pull down the insect screen (Figure 19/1) by the handle and hook it on both sides of the window frame into the latches.

➔ To unhook the insect screen from the latches, push the handle down and slightly pull it to the inside.

Opening/closing the blackout blind:

➔ To close the blackout blind (Figure 19/2), first close the insect screen (Figure 19/1). The blackout blind is equipped with a catch which allows you to lock it in different latching positions.

➔ Pull down the blackout blind by the handle. When the blackout blind is closed completely, hook the blind into the latches on both sides of the window frame.

➔ To unhook the blackout blind from the latches, push the handle down and slightly pull it to the inside.

8.5.3 Blackout blind and insect screen - version 3

Caution!

Damage to the insect screen and the blackout blind

The fabric of the insect screen and the blackout blind is sensitive to pressure and can easily be damaged when touched.

➔ Always hold the insect screen and the blackout blind by their handles when opening and closing them.

➔ Do not touch the fabric of the insect screen and the blackout blind with your fingers.

Both blackout blind (Figure 20/3) and insect screen (Figure 20/2) are located in the upper part of the window frame. The insect screen follows the blackout blind.

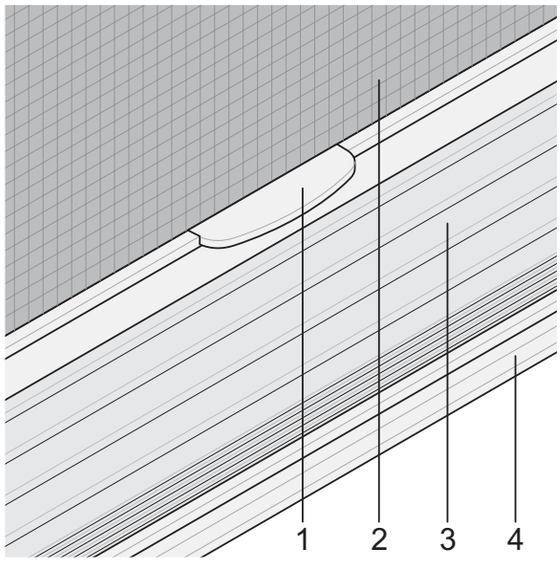


Figure 20 Opening and closing of the blackout blind and insect screen - version 3

1 Handle
2 Insect screen
3 Blackout blind
4 Grip rail

Opening/closing the blackout blind:

➔ Use the handle bar (Figure 20/4) to move the blackout blind (Figure 20/3) up or down. The blackout blind can be moved up or down to any position.

Opening/closing the insect screen:

➔ Use the handle (Figure 20/1) to move the insect screen (Figure 20/2) up or down.

8.6 View protectors in the vehicle front

To prevent people from looking into the interior of the vehicle, a view protector is fitted to each of the windows of the driver's cab: The view protectors are used to shut off the windscreen and the side windows.

8.6.1 View protectors on the windscreen (optional)

8.6.1.1 Pleated blind on the windscreen - version 1

Danger!

Risk of accident

If one or both halves of the pleated blind are not properly locked, the blind can detach from its locking position during certain driving manoeuvres and obscure the windscreen.

➔ Always lock both halves of the pleated blind before starting your journey.

Danger!

Risk of accident

If one or both windscreen halves are not locked, it is possible that the windscreen can become covered during certain driving manoeuvres.

➔ Lock the view protectors before starting the journey.

Caution!

Damage to the view protection

The fabric of the view protectors is sensitive to pressure and can easily be damaged when touched.

➔ Always use the handle when opening and closing the view protector.

➔ Do not touch the view protector's fabric with your fingers.

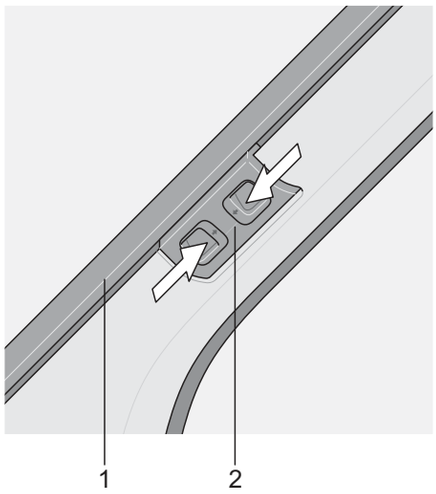


Figure 21 Unlocking the view protector

1 View protector
2 Handle

The view protector (Figure 21/1) is located on the left and right of the windscreen.

Closing the view protector:

➔ Fold up both sunvisors.

➔ Unlock the view protector (Figure 21/1) by pressing together both catch bars on the grip (Figure 21/2) on both sides of the windscreen.

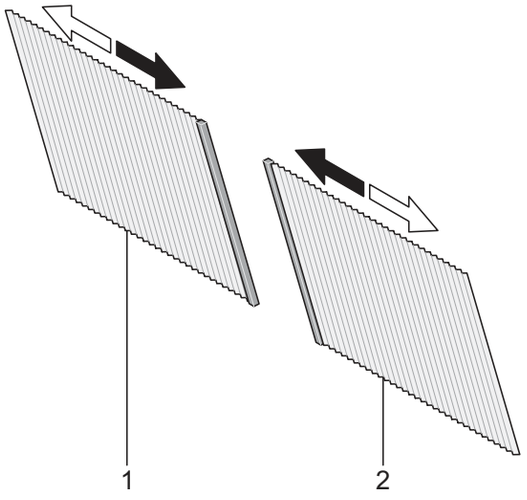


Figure 22 Windscreen view protector

1 View protector (left half)
2 View protector (right half)

➔ Put the rear-view mirror into a parallel position to the windscreen.

➔ Hold the view protectors (Figure 22/1 and 2) by their respective handle bars.

➔ Move both halves of the view protection to the centre of the windscreen.
The two halves of the view protection are held together by a magnetic strip.

Opening the view protector:

➔ Hold both parts of the view protection (Figure 22/1 and 2) by their respective handle bar and move them back to their respective A pillar position.

➔ Verify that both halves of the open view protector are properly locked.

8.6.1.2 Pleated blind on the windscreen - version 2

Danger!

Risk of accident

When the pleated blind is used as sun protection and lowered too far, this will result in reduced visibility when driving. This leads to an increased risk of accidents.

➔ When pulling down the pleated blind, make sure that you can still see through the windscreen without obstructions.

If the pleated blind is not properly locked, it can detach from its locking position during certain driving manoeuvres and obscure the windscreen.

➔ Lock the pleated blind before starting the journey.

Caution!

Damage to the view protection

The fabric of the view protectors is sensitive to pressure and can easily be damaged when touched.

➔ Always use the handle when opening and closing the view protector.

➔ Do not touch the view protector's fabric with your fingers.

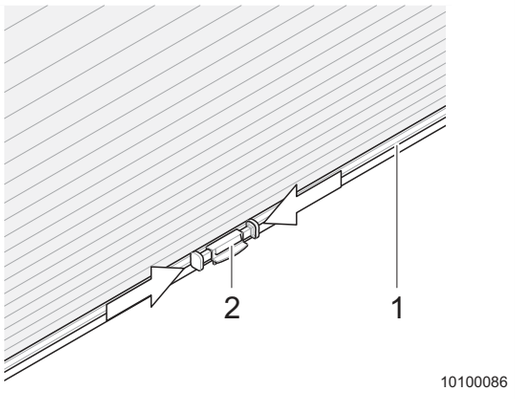


Figure 23 Unlocking the view protector

1 View protector
2 Grip with push-buttons

The view protector (Figure 23/1) is located at the top of the windscreen.

Closing the view protector:

➔ Press the push-buttons inside the blind's handle (Figure 23/2) together.

➔ Push the blind all the way down and release the push-buttons.

Note!

Some models have several locking positions so that the blind can also be used as sun protection.

Opening the view protector:

➔ Press the push-buttons inside the blind's handle (Figure 23/2) together.

➔ Slide the blind all the way up and release the push-buttons.

➔ Verify that the catches are engaged in the grip when open.

8.6.1.3 Electrically operated pleated front shade (optional)

Danger!

Risk of accident

When the electrically operated pleated front shade is used as sun protection and lowered too far, this will result in reduced visibility when driving. This leads to an increased risk of accidents.

➔ When lowering the electrically operated pleated front shade, make sure that you can still see through the windscreen without obstructions.

Caution!

Damage to the view protection

The fabric of the view protectors is sensitive to pressure and can easily be damaged when touched.

➔ Do not touch the view protector's fabric with your fingers.

The electrically operated pleated front shade is operated using a dedicated switch (Figure 24).

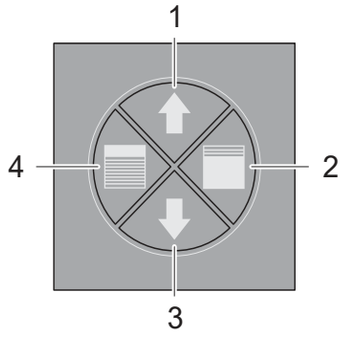


Figure 24 Switch for the pleated front shade

1 Button for manually moving the pleated front shade up
2 Button for pre-set position
3 Button for manually moving the pleated front shade down
4 Button for pre-set position

To close the lower section of the pleated front shade:

➔ Briefly press the button (Figure 24/3). The pleated front shade moves down.

➔ Briefly press the button (Figure 24/3) again. The pleated front shade stops at the desired position.

Opening the pleated front shade:

➔ Briefly press the button (Figure 24/1). The lower handle bar moves up.

➔ Briefly press the button (Figure 24/1) again. The lower handle bar stops at the desired position.

➔ Briefly press the button (Figure 24/3). The upper pleated front shade moves down.

➔ Briefly press the button again. The upper handle bar of the pleated blind stops at the desired position.

Moving the pleated front shade to a pre-set position:

➔ Press the button (Figure 24/2). The pleated front shade covers the lower part of the windscreen.

➔ Press the button (Figure 24/4). The pleated front shade covers the upper part of the windscreen.

Note!

The pleated front shade can only be moved to the pre-set positions when the control panel is switched on and the vehicle engine's ignition is turned off. Once the vehicle engine is started, the pleated front shade automatically moves back into its initial position.

Using the pleated front shade as a sunvisor:

➔ Briefly press the button (Figure 24/1 or Figure 24/3). Move the pleated front shade into the required position.
The pleated front shade cannot be moved any further than a specific pre-set position. It only covers the upper part of the windscreen.

8.6.2 Side window view protector

Danger!

Risk of accident

The view from the side windows is restricted if the view protection is closed. This leads to an increased risk of accidents.

➔ Keep the view protection completely open and secured in place when driving the vehicle.

8.6.2.1 Thermal curtain

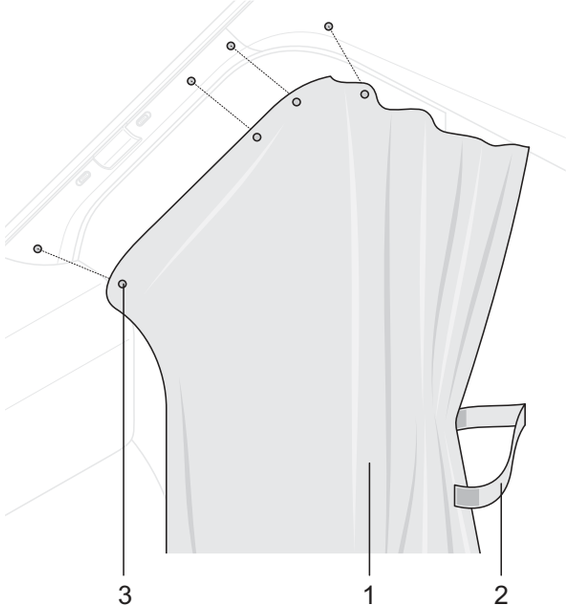


Figure 25 Thermal curtain

1 Thermal curtain
2 Retaining strap
3 Snap buttons

Closing the thermal curtain:

➔ Loosen the Velcro fastener on the retaining strap (Figure 25/2).

➔ Pull the thermal curtain (Figure 25/1) forwards and release the push-buttons (Figure 25/3).

Open the thermal curtain in reverse order.

8.6.2.2 Pleated blind on side windows - version 1 (optional)

Caution!

Damage to the view protection

The fabric of the view protectors is sensitive to pressure and can easily be damaged when touched.

➔ Always use the handle when opening and closing the view protector.

➔ Do not touch the view protector's fabric with your fingers.

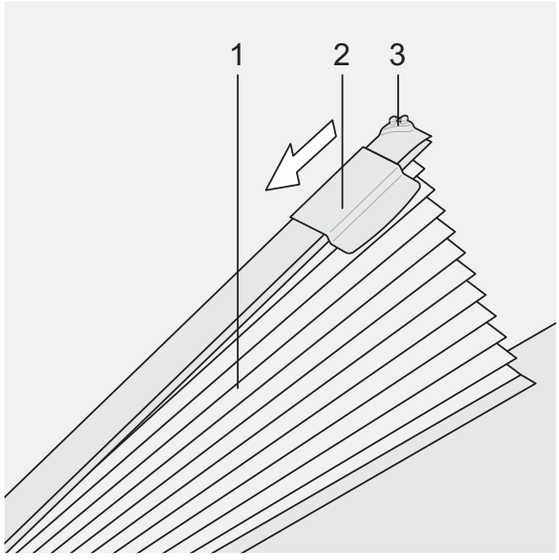


Figure 26 Pleated blinds, side window - version 1

1 Pleated blind
2 Handle
3 Magnetic buttons

The pleated blinds (Figure 26/1) are integrated in the right and left door frames in the driver's cab.

Closing the pleated blinds:

➔ Push the handle (Figure 26/2) into the direction of the arrow. The pleated blind is unlocked.

➔ Unfold the pleated blind (Figure 26/1) and use the magnetic buttons (Figure 26/3) to attach it to the window frame.

Open the pleated blind in reverse order.

8.6.2.3 Pleated blind on side windows - version 2 (optional)

Caution!

Damage to the view protection

The fabric of the view protectors is sensitive to pressure and can easily be damaged when touched.

➔ Always use the handle when opening and closing the view protector.

➔ Do not touch the view protector's fabric with your fingers.

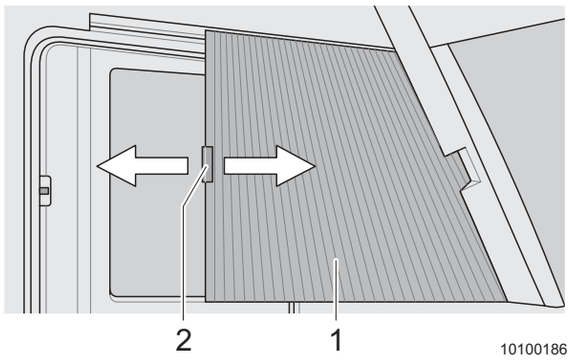


Figure 27 Pleated blinds, side window - version 2

1 Pleated blind
2 Handle

The pleated blind (Figure 27/1) is mounted on the right and left side of the driver's cab windscreen.

Closing the pleated blinds:

➔ Pull the pleated blind (Figure 27/1) by its handle (Figure 27/2) to remove it from the mounting.

➔ Push back the pleated blind by its handle and close it on the opposite side (magnetic catch).

Open the pleated blind in reverse order.

8.7 Roof window – Heki style

8.7.1 General

Note!

- ➔ Before starting the journey, check the roof openings for damage to the glass dome.
- ➔ Open the blackout blind and insect screen before starting to drive.
- ➔ Close the roof openings before starting the journey.
- ➔ ***ADRIA*** recommends driving at a maximum speed of **130 kph**.
- ➔ Do not open the roof openings in case of strong wind/storm, rain, hail, snowfall or outdoor temperatures under -10 °C.
- ➔ Verify that there are no obstacles in the opening area above the roof window – Heki style.
- ➔ Before opening the roof openings, remove snow, ice and other foreign material.
- ➔ Close the roof openings when leaving the vehicle. Danger of burglary or from rain water and wind.
- ➔ Consult an authorised workshop when faults or malfunctions occur.
- ➔ Roof windows, located only in the rear part of the vehicle, must ensure a certain level of ventilation even when they are closed. That is why the gasket is not installed on the entire perimeter of the roof window.
- ➔ Please note that during heavy weather conditions, small amounts of rain or snow may enter the vehicle through these ventilation openings in the roof window.

8.7.2 Roof window – Heki style with operating bar (optional)

The roof window – Heki style with operating bar can be raised on one side.

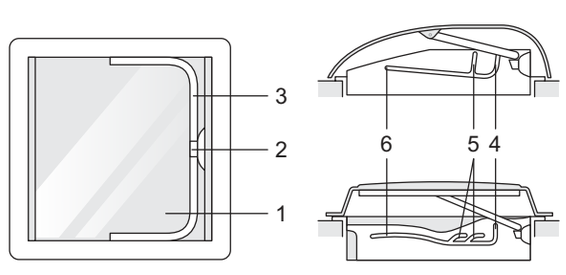


Figure 28 Opening/closing the roof window – Heki style, with operating bar

1 Glass dome
2 Locking button
3 Bar
4 "Closed" position
5 "Ventilation" position
6 "Open" position

Opening a roof window – Heki style

- ➔ Press the locking button (Figure 28/2) and pull down the bar (Figure 28/3).
- ➔ Push the bar to the desired position ("Venting" (Figure 28/5) or "Open" (Figure 28/6).

Closing a roof window – Heki style:

- ➔ Push the bar (Figure 28/3) towards the locking button (Figure 28/2).
- ➔ Press the locking button and push the bar back to "Closed" position (Figure 28/4).

8.7.3 Roof window – Heki style with crank operation (optional)

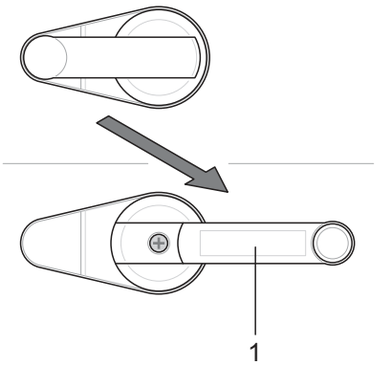


Figure 29 Opening/closing a roof window – Heki style, with crank operation - version 1

1 Hand crank

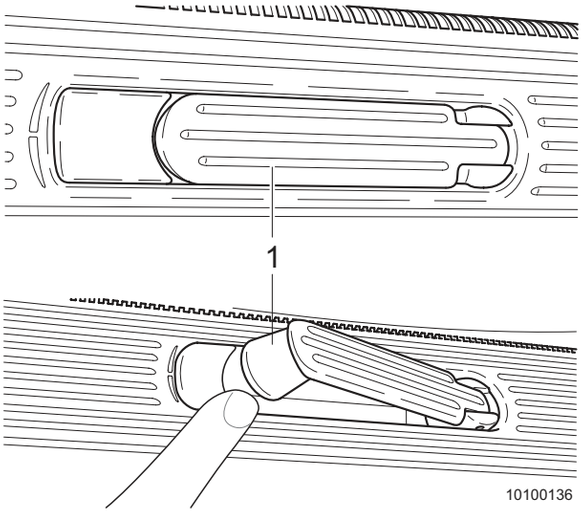


Figure 30 Opening/closing a roof window – Heki style, with crank operation - version 2

1 Hand crank

Opening a roof window – Heki style:

Some models are equipped with additional locking levers (Figure 13).

➔ Fold out the hand crank (Figure 29/1 or Figure 30/1).

➔ Turn the hand crank until you can feel a resistance.
The roof window – Heki style is now opened as far as it will go.
Any intermediate position is possible.

Closing a roof window – Heki style:

➔ Turn the hand crank (Figure 29/1 or Figure 30/1) until you can feel a resistance.

➔ Check the locking by attempting to lift the glass dome.
Before you fold in the hand crank again, a light initial tension must be present on the crank.

8.7.4 Roof window – Heki style blackout blind and insect screen running in opposite directions

8.7.4.1 Version 1

Caution!

Damage to the blind

The fabric of the blinds is sensitive to pressure and can easily be damaged when touched.

➔ Always use the handles when opening and closing the blind.

➔ Do not touch the blind's fabric with your fingers.

Note!

Both are continuously adjustable and can be operated together or separate from each other.

Only close the blackout blind to a maximum of 75% during direct sunlight. Air must be able to circulate.

Drops of condensed water can cause stains on the fabric.

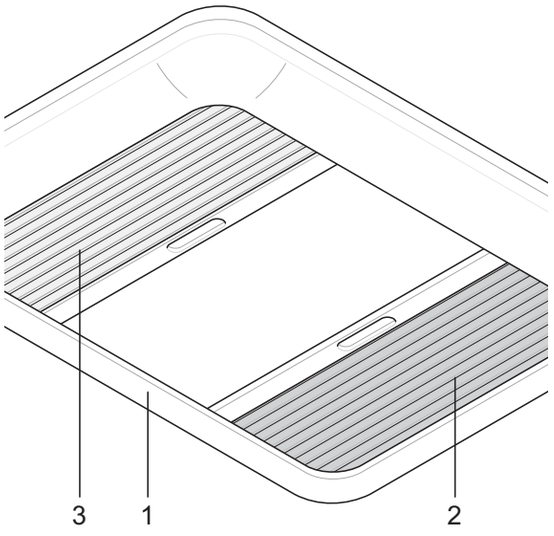


Figure 31 Roof window – Heki style, blackout blind and insect screen running in opposite directions

1 Inner frame
2 Blackout blind
3 Insect screen

The blackout blind (Figure 31/2) and the insect screen (Figure 31/3) are fitted in the inner frame (Figure 31/1) of the roof window – Heki style.

Opening/closing the blackout blind or insect screen:

➔ Hold the blackout blind or the insect screen by the handle bar and move it to the desired position.

8.7.4.2 Version 2

Caution!

Damage to the blind

The fabric of the blinds is sensitive to pressure and can easily be damaged when touched.

➔ Always use the handles when opening and closing the blind.

➔ Do not touch the blind's fabric with your fingers.

Caution!

Damage to insect screen

➔ Hold the insect screen tight when unlocking otherwise the spring tension will make it snap back. Snapping back can damage the screen spring and the screen.

Note!

The blackout blind is continuously adjustable.

The insect screen can only be closed when the blackout blind is latched in.

Only close the blackout blind to a maximum of 75% during direct sunlight. Air must be able to circulate.

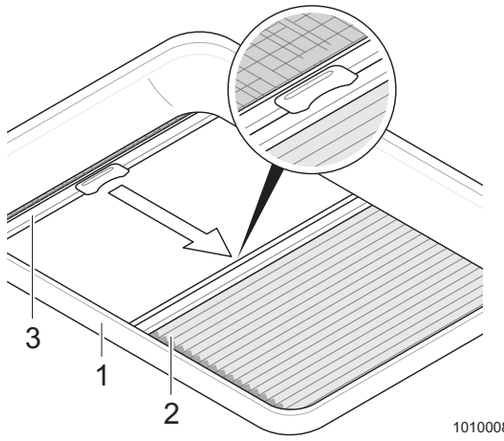


Figure 32 Roof window – Heki style, blackout blind and insect screen running in opposite directions

1 Inner frame
2 Blackout blind
3 Insect screen

The blackout blind (Figure 32/2) and the insect screen (Figure 32/3) are fitted in the inner frame (Figure 32/1) of the roof window – Heki style.

Opening/closing the blackout blind or closing insect screen:

➔ Use the handle bar to move the blackout blind to the desired position.

➔ To close the insect screen, slide the grip rail of the insect screen towards the grip rail of the blackout blind and latch it in.

Closing the insect screen:

➔ Hold the insect screen by the handle bar.

➔ Press the lock of the insect screen and move the insect screen to the end position.

8.7.5 Roof window – Heki style, blackout blind and insect screen running in the same direction

Caution!

Damage to the blind

The fabric of the blinds is sensitive to pressure and can easily be damaged when touched.

➔ Always use the handles when opening and closing the blind.

➔ Do not touch the blind's fabric with your fingers.

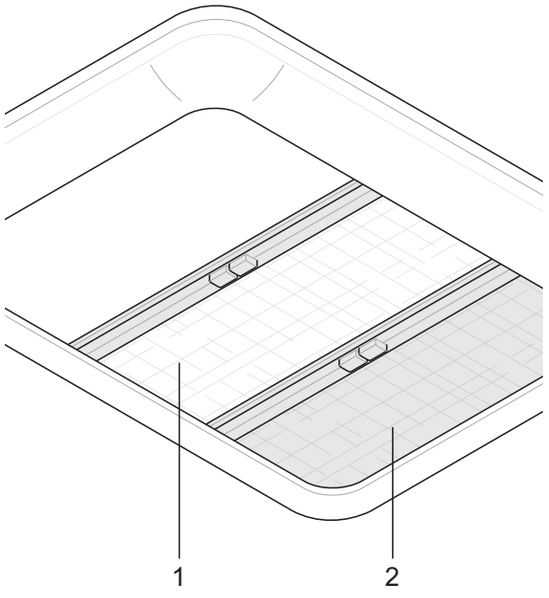
Note!

Both are continuously adjustable and can be operated together or separate from each other.

When releasing the handle, the blind is clamped and held in place inside the inner frame of the roof window – Heki style automatically.

Only close the blackout blind to a maximum of 75% during direct sunlight. Air must be able to circulate.

Drops of condensed water can cause stains on the fabric.



1 Insect screen
2 Blind

Figure 33 Roof window – Heki style, blind and insect screen running in the same direction

The blackout blind (Figure 33/2) and insect screen (Figure 33/1) are fitted in the inner frame of the roof window – Heki style.

Opening/closing the blackout blind or insect screen:

➔ Press the handle bars of the blackout blind and/or the insect screen together and move the blackout blind or screen to the desired position.

8.7.6 Roof window – Heki style, blackout blind and insect screen running together

Caution!

Damage to the blind

The fabric of the blinds is sensitive to pressure and can easily be damaged when touched.

➔ Always use the handles when opening and closing the blind.

➔ Do not touch the blind's fabric with your fingers.

Note!

Both folding screens are continuously adjustable and can be operated together or separate from each other.

After letting go of the operating bar, the folding screen remains in the position it has reached.

The insect screen is integrated into the second operating bar and allows maximum amount of light or darkening with insect screen function.

Only close the blackout blind to a maximum of 75% during direct sunlight. Air must be able to circulate.

Drops of condensed water can cause stains on the fabric.

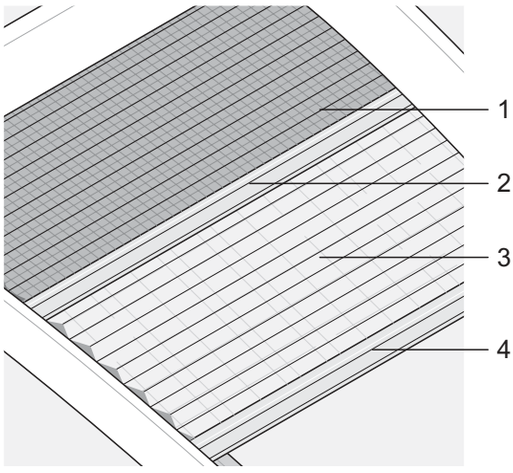


Figure 34 Roof window – Heki style, blackout blind and insect screen running together

1 Insect screen
2 Grip bar of insect screen
3 Blackout blind
4 Grip bar of blackout blind

Opening/closing the blackout blind or insect screen:

The insect screen (Figure 34/1) is permanently connected with the blackout blind (Figure 34/3). When opening the blackout blind, it may be necessary to manually move the insect screen to follow the blackout blind.

➔ Hold the handle bar (Figure 34/4) to move the blackout blind (Figure 34/3) to the desired position.

8.7.7 Maintaining the roof window – Heki style

Please refer to Chapter 19.1.1 for information on how to service the roof windows – Heki style.

8.8 Control panel

Depending on the equipment and model, the vehicle may be equipped with different types of control panels.

The control panel can be used to operate and set various electrical appliances and to check the state of charge of the batteries as well as the filling levels in the water tanks.

Depending on the equipment and model, the control panel is either located in the entrance door area or above the refrigerator.

8.8.1 Control panel NE 266

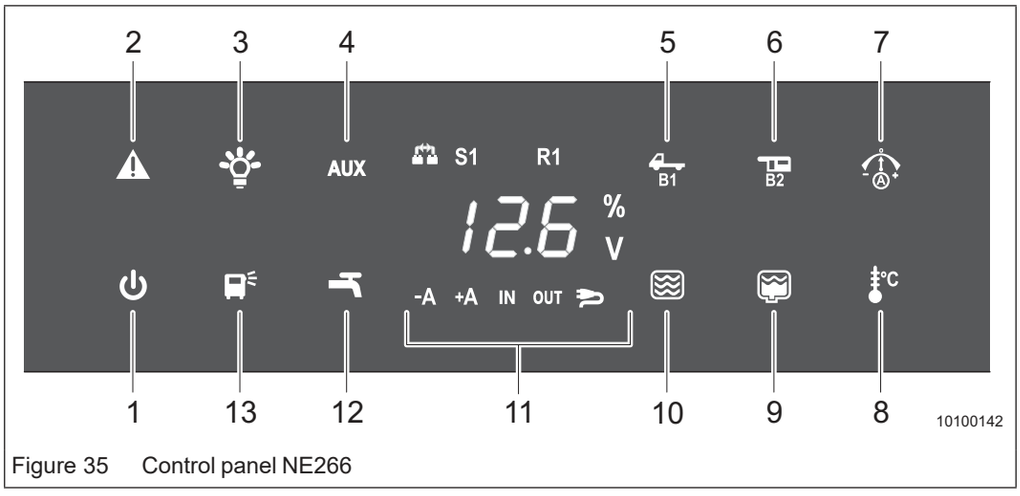


Figure 35 Control panel NE266

1 Illuminated push-sensor “On/Off”
2 Indicator "Malfunction"
3 Illuminated push-sensor “Interior lighting”
4 Illuminated push-sensor “AUX”
5 Illuminated push-sensor “Starter battery B1”
6 Illuminated push-sensor “Service battery B2”
7 Illuminated push-sensor “Service battery charge/discharge”
8 Illuminated push-sensor “Temperature display”
9 Illuminated push-sensor “Waste water tank”
10 Illuminated push-sensor “Fresh water tank”
11 Display for information and alarms
12 Illuminated push-sensor “water pump”
13 Illuminated push-sensor “Exterior lights”

Note!

The indicator goes off after approx. 30 seconds when no button is pressed during this period.

Activating the control panel:

➔ Touch the right or left side of the control panel for a second.

Sensor "On/Off":

➔ Touch the "On/Off" sensor (Figure 35/1) to deactivate the control panel.

➔ Touch the "On/Off" sensor for more than 3 seconds to deactivate all buttons for 1 minute (in order to clean the control panel).

Note!

You can also use the switch for the awning light at the entrance to activate the control panel. This will turn on the awning light and move out the entrance step to make it easier for you to get on board in the dark.

Sensor "Interior lighting":

➔ Touch the "Interior lighting" sensor (Figure 35/3) to switch the interior lighting on or off.

Sensor "Exterior lighting":

➔ Touch the "Exterior lighting" sensor (Figure 35/13) to switch the exterior lighting on or off.

Sensor „AUX":

➔ Touch the "AUX" sensor (Figure 35/4) to switch the AUX port on or off.

Sensor „Pump":

➔ Touch the "Water pump" (Figure 35/12) sensor to switch the water pump on or off.

Sensor "Starter battery B1":

➔ Touch the "Starter battery B1" sensor (Figure 35/5) once to display the starter battery voltage (B1) on the display (Figure 35/11).

➔ Touch the "Starter battery B1" sensor twice to display the remaining battery capacity in percent on the display.

Sensor "Service battery B2":

➔ Touch the "Service battery B2" (Figure 35/6) sensor once to display the service battery voltage (B2) on the display (Figure 35/11).

➔ Touch the "Service battery B2" sensor twice to display the remaining battery capacity in percent on the display.

Sensor "Service battery charge/discharge":

➔ Touch the "Service battery charge/discharge" sensor (Figure 35/7). If the battery is being charged at this moment, "+A" is shown on the display (Figure 35/11). If the battery is being discharged at this moment, "-A" is shown on the display.

Sensor „Fresh water tank":

➔ Touch the "Fresh water tank" sensor (Figure 35/10) to show the filling level in the fresh water tank (S1) on the display (Figure 35/11) in percent (0%, 25%, 50%, 75%, 100%). If the fresh water tank is empty the information on the display (Figure 35/11) will be flashing. If the tank connections are faulty, " - - -" will be shown on the display.

Sensor "Waste water tank":

➔ Touch the "Waste water tank" sensor (Figure 35/9) to show the filling level in the waste water tank (R1) on the display (Figure 35/11) in percent (0%, 25%, 50%, 75%, 100%).
If the waste water tank is full, the information on the display (Figure 35/11) will be flashing. If the tank connections are faulty, " - - -" will be shown on the display.

Sensor "Temperature display":

➔ Touch the "Temperature display" sensor (Figure 35/8) once to display the inside temperature on the display (Figure 35/11).

➔ Touch the "Temperature display" sensor (Figure 35/8) twice to display the outside temperature on the display (Figure 35/11).
If the temperature sensor is missing "0Pt" is shown on the display. If the temperature sensor is damaged "-" is shown on the display.

Alarms:

The alarms call attention to various problems:

- The voltage of the starter battery (B1) is below 11.8 volts or the voltage of living area battery (B2) is below 10 volts. In this case the following alarm signals will occur:
  - A signal tone,
  - an alarm display and
  - the corresponding LED is flashing.
- The fresh water tank (S1) is empty or the waste water tank (R1) is full. In this case the following alarm signals will occur:
  - A signal tone,
  - an alarm display and
  - the corresponding LED is flashing.

Deactivating the alarm:

➔ Touch the illuminated push-sensor with the alarm display for more than 3 seconds.

Indicator "Malfunction":

The "Malfunction" indicator (Figure 35/2) is illuminated if a malfunction has occurred.

An error code appears on the display (Figure 35/11):

- E.1: Serial cable is connected wrong.
- E.2: The "water pump" output is short-circuited or overloaded.
- E.6: The "exterior lighting" output is short-circuited or overloaded.
- E.7: The "AUX/Boiler" output is short-circuited or overloaded.
- E.3, E.4, E.5: Error in a relay circuit, faulty connection with power supply.

For further information, please refer to the manufacturer's separate operating instructions.

8.8.2 Control panel PSI

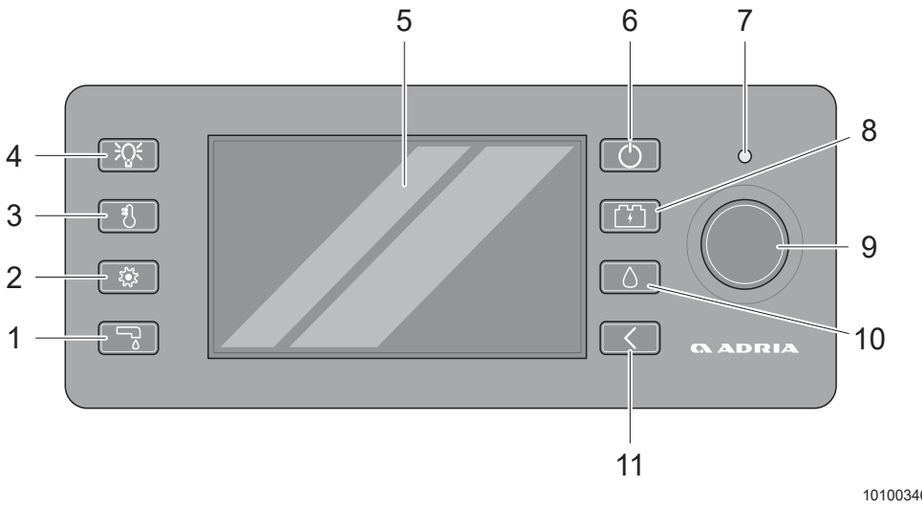


Figure 36 Control panel PSI

1 Water pump button
2 Settings menu button
3 Temperature menu button
4 Lighting menu button
5 Display
6 On/Off button
7 Ambient light sensor
8 Battery menu button
9 Control knob
10 Water tank menu button
11 Back button

Activating the control panel:

➔ Briefly press the On/Off button (Figure 36/6).

Deactivating the control panel or setting it to standby:

➔ Briefly press the On/Off button (Figure 36/6). The standby mode is activated.

➔ Press and hold the On/Off button. The control panel is switched off.

Switching the water pump on/off:

➔ Press the water pump button (Figure 36/1). The water pump is either switched on or off. The operating state of the water pump is indicated on the display.

➔ Pressing the water pump button again will change the pump's operating state.

Settings menu:

➔ Press the settings menu button (Figure 36/2). The settings menu will open.
You can use this menu to change various settings (such as the background lighting, time settings etc.). Use the control knob (Figure 36/9) to navigate through the menus.

Opening the temperature menu:

➔ Press the temperature menu button (Figure 36/3). The temperature menu will open.
This menu displays the temperature inside and outside the vehicle. If the vehicle has an floor heating, this menu will also display the floor heating settings.

Opening the lighting menu:

➔ Press the lighting menu button (Figure 36/4). The lighting menu will open.
Use the control knob (Figure 36/9) to change the settings for the interior and exterior lighting.

Opening the battery menu:

➔ Press the battery menu button (Figure 36/8). The battery menu will open.
This menu displays the current state of charge for the living area battery and the vehicle battery. Use the control knob (Figure 36/9) to access further information.

Opening the water tank menu:

➔ Press the water tank menu button (Figure 36/10). The water tank menu will open.
This menu displays the current filling levels of the fresh water tank and the waste water tank.

Back button:

➔ Pressing the back button (Figure 36/11) will take you back to the previous screen.

8.9 Light control

Note!

The following features can only be used after activating the interior lighting on the control panel.

8.9.1 Dimmer (optional)

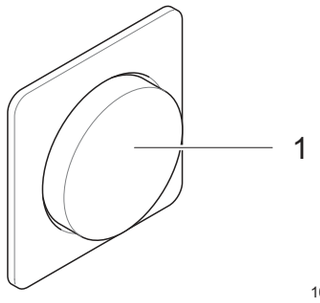


Figure 37 Dimmer

1 Rotary knob / touch-sensor

Some vehicle models are equipped with an electrical dimmer with a rotary knob or an electronic dimmer with “touch” function.

Dimmer with rotary knob

➔ Press the rotary knob (Figure 37/1) to switch the lighting on or off.

➔ Turn the rotary knob (Figure 37/1) to dim the lighting.

Dimmer with “touch” function:

➔ Briefly press the touch sensor (Figure 37/1) to switch the lighting on or off.

➔ Press and hold the touch sensor (Figure 37/1) to dim the lighting.

8.9.2 LED spots with “touch” function

Some vehicle models are equipped with LED spots with “touch” function.

Some vehicles are equipped with internal and external LED lighting.

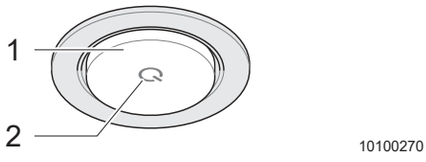


Figure 38 LED spots with “touch” function

1 LED spot
2 Contact surface

➔ Briefly touch the contact surface of the LED spot (Figure 38/2) to switch it on or off.

8.9.3 LED spot with On/Off switch

Depending on the model, the vehicle may be equipped with pivoting LED spots.

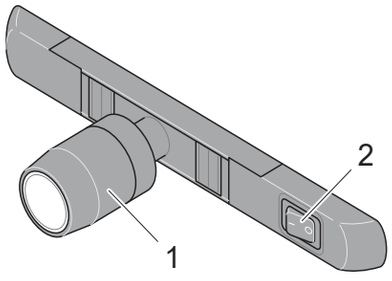


Figure 39 LED spot with On/Off switch

1 Pivoting LED spot
2 On/Off switch

➔ Use the switch (Figure 39/2) to turn the LED spot (Figure 39/1) on or off.
➔ If required, you can pivot and change the position of the LED spot.

8.9.4 LED spot with On/Off switch and USB port

Some vehicle models are equipped with LED spots and USB port.

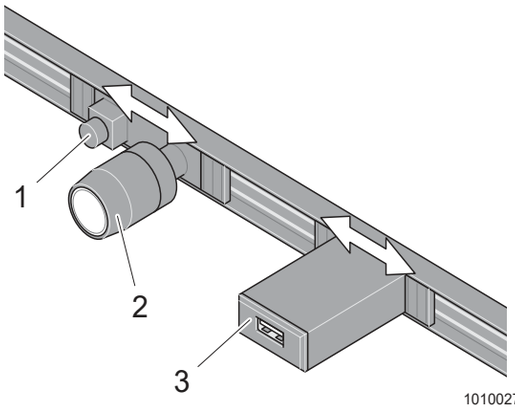


Figure 40 LED spot with On/Off switch and USB port

1 On/Off switch
2 Pivoting LED spot
3 USB port

➔ Use the switch (Figure 40/1) to turn the LED spot (Figure 40/2) on or off.
➔ If required, you can pivot and change the position of the LED spot.

8.9.5 Central light control (only Supersonic)

The lighting control is located adjacent to the control panel.

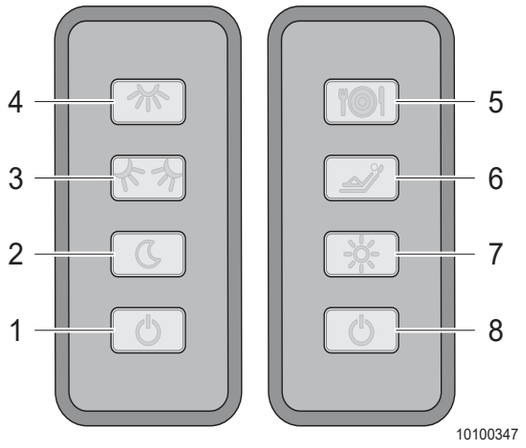


Figure 41 Light control

1 On/Off switch for area 1
2 Ambient lighting
3 Reduced brightness
4 Maximum brightness
5 Lighting in living area
6 Lighting in sleeping area
7 Lighting in children's area
8 On/Off switch for area 2

➔ You can use the switches (Figure 41/1 or Figure 41/8) to turn the lights in the respective entire areas on or off.

➔ Use the switches (Figure 41/5 to Figure 41/7) to select the affected areas.

➔ Use the switches (Figure 41/2 to Figure 41/4) to set the brightness for the respective areas.

8.9.6 ADRIA MACH (optional)

ADRIA MACH provides you with a mobile device application to remote control all essential functions in your vehicle. The app also has a navigation function with a large database of interesting places (ADRIA dealers, camping grounds, parking lots, restaurants, attractions etc.) Furthermore, you can manage your vehicle's settings and set up a mobile office with this app.

You can control the following devices and functions with the ADRIA MACH app.

- Lighting
- Heating
- Air conditioning
- Reading the batteries' state of charge
- Reading the filling levels in the water tanks
- Reading the filling level of the gas cylinder
- Refrigerator

Some functions require a SIM card.

Note!

For detailed information on how to install and use the functions of the ADRIA MACH app, please refer to the ADRIA website.

8.10 Electrical entrance step (optional)

Warning!

Risk of accident

- ➔ Maximum load of entrance step: 200 kg.
- ➔ Before starting the journey, ensure the entrance step is completely retracted.
- ➔ Extend and retract the entrance step only in an unloaded condition.
- ➔ Keep persons and pets away from the entrance step during extension or retraction.
- ➔ Only adults may operate the entrance step.
- ➔ Never leave the vehicle without extended entrance step.
- ➔ Never jump on the step.
- ➔ Only use the step when it is fully extended.
- ➔ Only one person may be on the step at a time.
- ➔ Before extending or retracting the entrance step, check the available space.
- ➔ Ensure the extended step does not represent an obstacle or hazard for third persons.
- ➔ In adverse weather conditions, clean the step from snow or ice.
- ➔ Clean the entrance step thoroughly at regular intervals to ensure proper functioning.

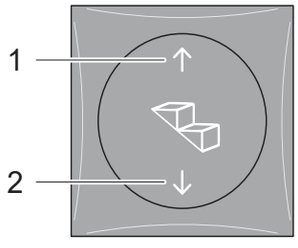


Figure 42 Switch for the electrically operated entrance step

1 Retracting the entrance step
2 Extending the entrance step

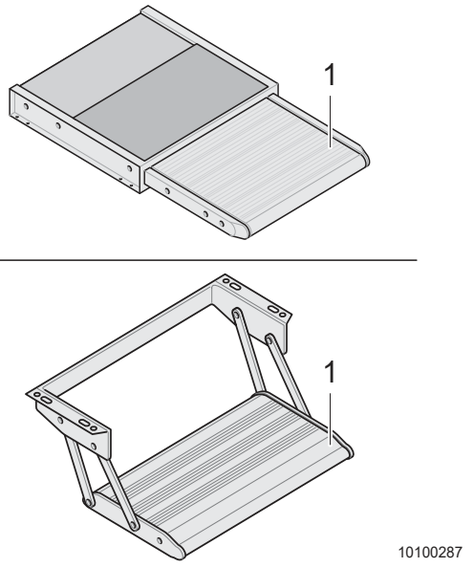


Figure 43 Electrically operated entrance step

1 Entrance step

Retracting or extending the electrically operated entrance step:

The switch (Figure 42) for retracting or extending the electrically operated entrance step is located in the area around the entrance door.

➔ Tap on the upper part of the switch (Figure 42/1). The entrance step (Figure 43/1) is retracted.

➔ Briefly tap on the lower part of the switch (Figure 42/2) to extend the entrance step (Figure 43/1).

8.11 Seating group

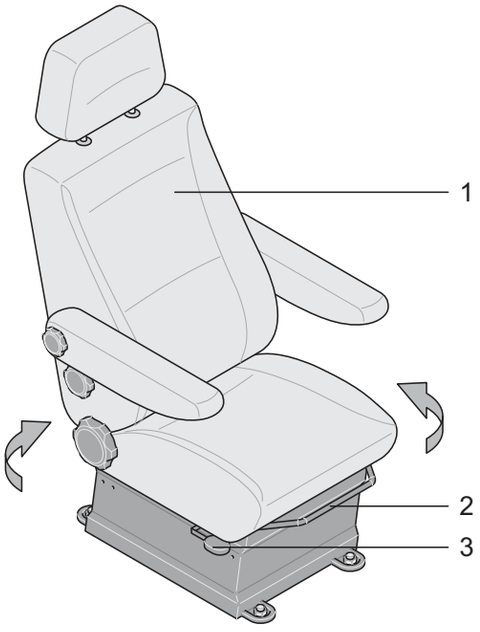
The driver's and passenger seats can be rotated to extend the seating group.

8.11.1 Rotatable driver's/passenger seat

Danger!

Accident hazard when the driver's seat rotates while driving

➔ The driver's seat must be locked before you start to drive.



1 Seat
2 Bar (forward / backward)
3 Locking lever (rotate)

Figure 44 Rotatable driver's/passenger seat

Rotating the driver's seat/passenger seat:

➔ Adjust the inclination of the backrest and the seat position so that the seat does not collide with the side wall, the cab door or the steering wheel.

– If necessary, briefly release the handbrake and reapply it after the seats are turned around.

➔ Use the locking lever (Figure 44/3) and turn the seat around.

➔ Before starting the journey, rotate the seat back to its initial position.

➔ Ensure that the locking lever (Figure 44/2) has engaged.

Note!

The seats are adjustable in height.

8.11.2 Aguti driver's seat/passenger seat with air suspension (optional)

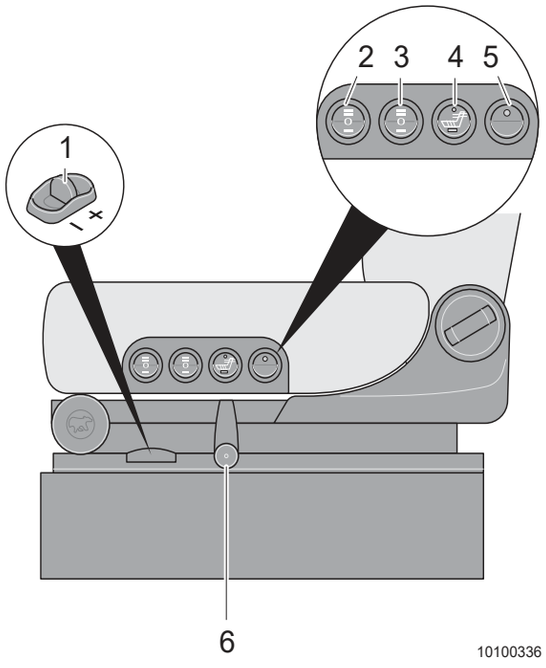


Figure 45 Aguti driver's seat/passenger seat

1 Button for setting the air suspension
2 Switch for setting the lumbar support 1
3 Switch for setting the lumbar support 2
4 Switch for seat heating
5 Switch for seat ventilation
6 Locking lever (rotate)

Setting the air suspension:

➔ Press the button (Figure 45/1) (– softer / + harder).

Setting the lumbar support:

➔ Set the switch (Figure 45/2 or Figure 45/3) to the desired position.

Switching the seat heating on or off:

➔ Set the switch (Figure 45/4) to the desired position.

Switching the seat ventilation on or off:

➔ Push the switch (Figure 45/5) up or down.

Rotating the driver's seat/passenger seat:

➔ Adjust the inclination of the backrest and the seat position so that the seat does not collide with the side wall, the cab door or the steering wheel.

– If necessary, briefly release the handbrake and reapply it after the seats are turned around.

➔ Use the locking lever (Figure 45/6) and turn the seat around.

➔ Before starting the journey, rotate the seat back to its initial position.

8.11.3 Multifunctional bench seat

On some models, the bench seat can be converted into an additional seat for the journey.

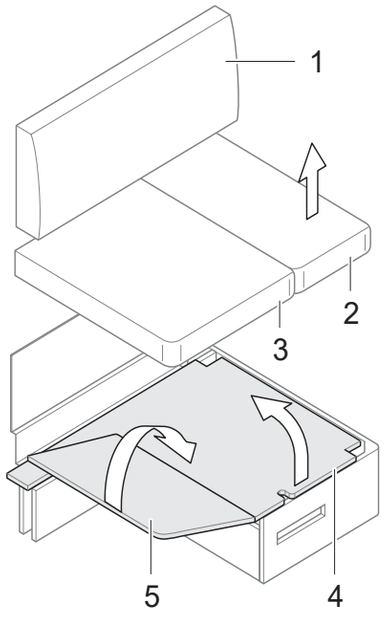


Figure 46 Multifunctional bench seat 1

1 Back cushion
2 Small seat cushion
3 Large seat cushion
4 Large bed
5 Small bed

Converting the bench seat into an additional seat for the journey:

➔ Remove the back cushion (Figure 46/1) and store it in a safe place.
➔ Remove the seat cushions (Figure 46/2 and 3).
➔ Fold out the small bed (Figure 46/5).
➔ Fold up the large bed (Figure 46/4).

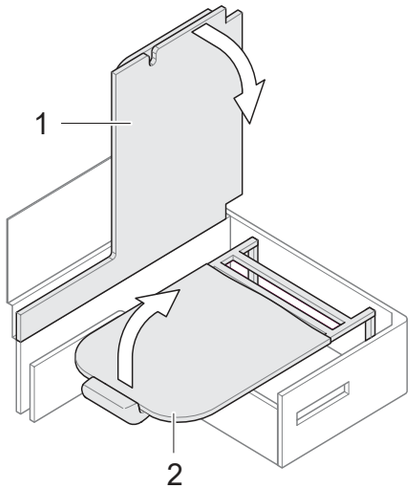


Figure 47 Multifunctional bench seat 2

1 Large bed
2 Backrest

➔ Fold up the backrest (Figure 47/2) until it clicks into place.
➔ Fold down the large bed (Figure 47/1).

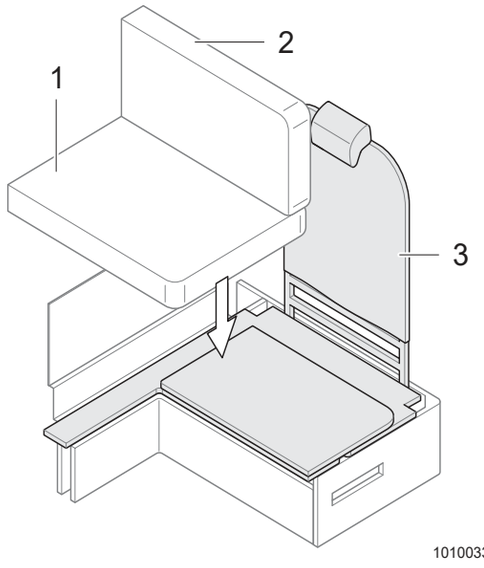


Figure 48 Multifunctional bench seat 3

1 Large seat cushion
2 Small seat cushion
3 Backrest

➔ Place the large seat cushion (Figure 48/1) on the bed.
➔ Put down the small seat cushion (Figure 48/2) in an upright position and attach it to the backrest (Figure 48/3).

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

8.11.4 Seating group

Danger!

Risk of injury

➔ While travelling, passengers must use the seat belts on the seat benches and face the driving direction.

Note!

➔ The cushions must always be secured (also when parked) with all attachment devices.

The substructures of the seat benches are made from massive steel pipes and contain the attachment points of the seat belts.

The cushions of the seat benches are attached to the substructure with snap buttons, snap-on fasteners and/or Velcro fasteners.

The water tank is underneath the seat bench on some models (Chapter 12.2.1).

Note!

Some models are equipped with an additional seat with safety belt.

8.12 Tables

Caution!

Risk of burning and scalding

Because the table top is not permanently fixed, cups or glasses could tip over and plates could fall off the table when the table top moves. This could cause injuries and scalding.

➔ Remove all food and drinks from the table before you start converting.

Warning!

Risk of injuries in the case of an accident

➔ For tables that are hinged into position to be used, first fold up the table leg and stow away the table safely (e.g. in the rear garage), before starting the journey.

8.12.1 Extending the table with a swivelling board

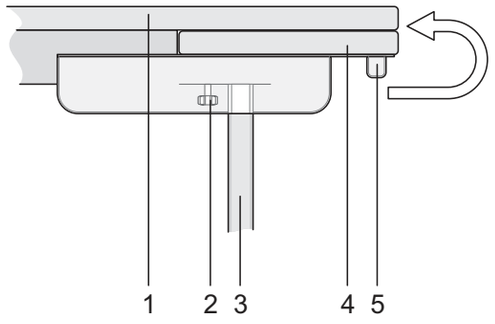


Figure 49 Extending the table with a swivelling board

1 Table top
2 Locking screw
3 Table leg
4 Extension plate
5 Handle

➔ Loosen the locking screw (Figure 49/2) at the table's bottom surface by turning it anticlockwise.

➔ Pull out the extension plate (Figure 49/4) by the handle (Figure 49/5).

➔ Swing up the extension plate (Figure 49/4).

The extension is disassembled in reverse order.

8.12.2 Foldable table

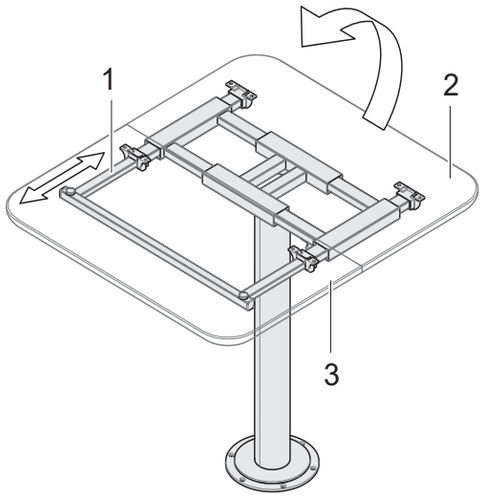


Figure 50 Foldable table

1 Support frame
2 Fixed table top
3 Foldable table top

Folding out the table top:

➔ Pull out the support frame (Figure 50/1).

➔ Fold down the foldable part of the table top (Figure 50/3).

Folding in the table top:

➔ Fold down the foldable part of the table top (Figure 50/3).

➔ Push the support frame (Figure 50/1) back in.

8.12.3 Folding and rotatable table

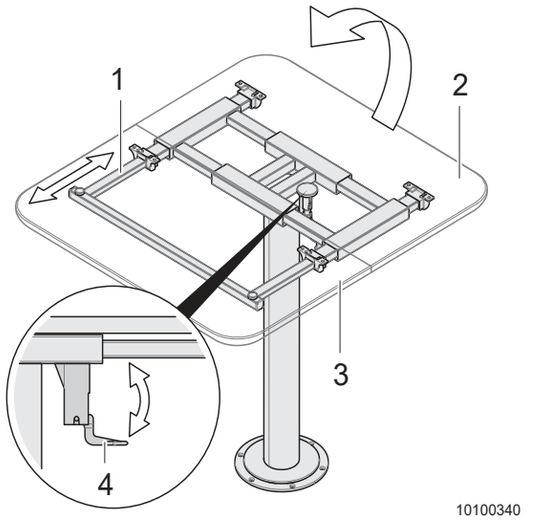


Figure 51 Foldable and rotatable table

1 Support frame
2 Fixed table top
3 Foldable table top
4 Locking lever

Folding out the table top:

➔ Pull out the support frame (Figure 51/1).

➔ Fold down the foldable part of the table top (Figure 51/3).

Folding in the table top:

➔ Fold down the foldable part of the table top (Figure 51/3).

➔ Push the support frame (Figure 51/1) back in.

Rotating the table top:

➔ Fold down the locking lever (Figure 51/4).

➔ Turn the table to the desired position.

➔ Fold up the locking lever.

8.12.4 Foldable and rotatable table with extendable base

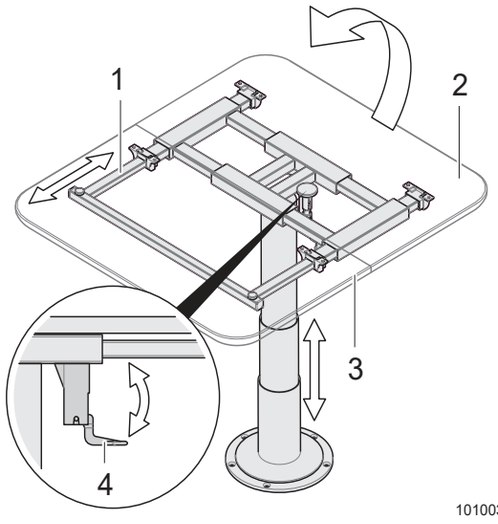


Figure 52 Table with extendable base

1 Support frame
2 Fixed table top
3 Foldable table top
4 Locking lever

Folding out the table top:

➔ Pull out the support frame (Figure 52/1).

➔ Fold down the foldable part of the table top (Figure 52/3).

Folding in the table top:

➔ Fold down the foldable part of the table top (Figure 52/3).

➔ Push the support frame (Figure 52/1) back in.

Rotating the table top:

➔ Fold down the locking lever (Figure 52/4).

➔ Turn the table to the desired position.

➔ Fold up the locking lever.

Lowering the table with extendable base:

➔ Slightly lift the table top (Figure 52/2). This will release the locking mechanism for the table's height.

➔ Lower the table.

Raising the table with extendable base:

➔ Raise the table top until you feel resistance. Then lower it slightly.
The locking mechanism for the table's height engages.

8.13 Furniture locks

Caution!

Damage to the handles

- ➔ Do not pull too hard on a handle when the respective door, flap or drawer cannot be opened.
- ➔ First unlock the drawers before opening them.
- ➔ To close the bathroom door, always hold the door handle pressed fully down.

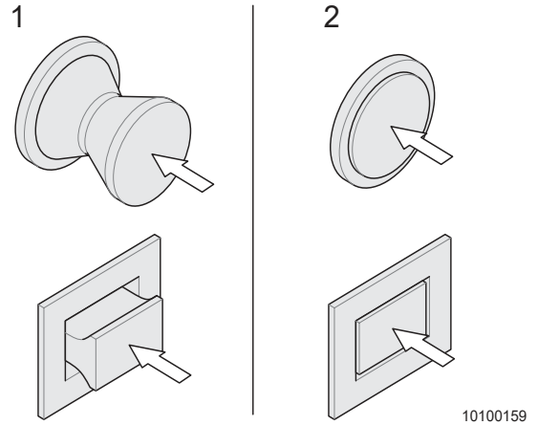
Depending on the selected model and equipment, your vehicle can be fitted with different types of locking systems. The illustration only serves as an example for the operating principle of the system. Differences in form are possible.

8.13.1 Furniture locks - version 1

Caution!

Risk of damage through cupboard or drawer contents flying around!

- ➔ Carefully lock the cabinets and drawers before starting each journey.



1 Lock
2 Unlock

Figure 53 Furniture lock - version 1

Locking:

- ➔ Close the cabinet door, the flap or the drawer.
- ➔ Push in the handle until it engages (Figure 53/1).
  The handle remains engaged in this position. The lock is locked.

Unlocking:

- ➔ Push in the handle (Figure 53/2). The handle springs out. The lock is unlocked.
- ➔ Open the cabinet door, the flap or the drawer.

8.13.2 Furniture locks - version 2

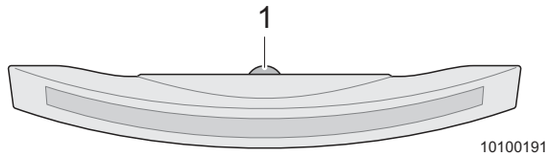


Figure 54 Furniture lock - version 2

1 Locking button

Opening:

➔ Press the locking button (Figure 54/1). The lock is unlocked.

➔ Open the cabinet door, the flap or the drawer.

Closing:

➔ Close the cabinet door, the flap or the drawer.

➔ Release the handle. The lock is locked.

8.13.3 Furniture locks - version 3

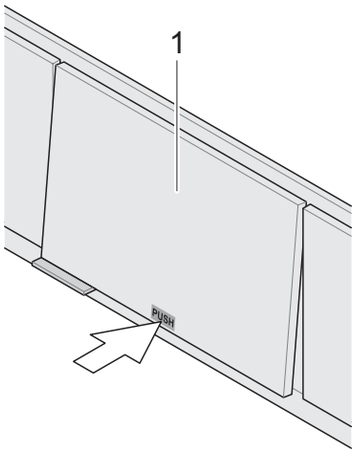


Figure 55 Furniture lock - version 3

1 Flap

Opening:

➔ Lightly press against the middle of the cabinet door, flap or drawer. The pushing position is marked with "Push".
The lock is unlocked.

➔ Open the cabinet door, the flap or the drawer.

Closing:

➔ Close the cabinet door, the flap or the drawer.

➔ Lightly press against the middle of the cabinet door, flap or drawer. The pushing position is marked with "Push".
The cabinet door, the flap or the drawer is locked.

8.13.4 Furniture locks - version 4

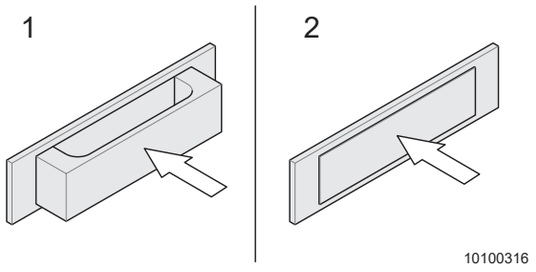


Figure 56 Furniture lock - version 4

1 Lock
2 Unlock

Locking:

➔ Close the cabinet door, the flap or the drawer.

➔ Push in the handle until it engages (Figure 56/1).
The handle remains engaged in this position. The lock is locked.

Unlocking:

➔ Push in the handle (Figure 56/2). The handle springs out. The lock is unlocked.

➔ Open the cabinet door, the flap or the drawer.

8.14 Bathroom unit

Caution!

Damage to shower enclosure or bathroom unit

Unless the shower enclosure is secured it can open or close unrestricted during the journey and get damaged.

➔ Lock the shower enclosure before starting your journey.

8.14.1 Shower enclosure with retaining strap

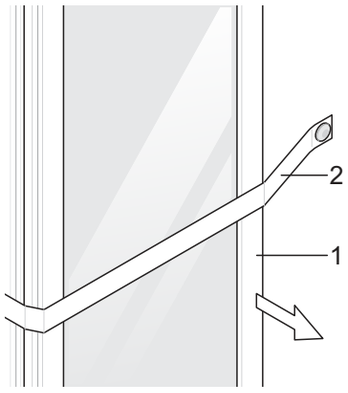


Figure 57 Folding shower door

1 Folding door
2 Retaining strap

Closing:

➔ Release the holding strap (Figure 57/2).

➔ Pull shut the folding door (Figure 57/1).

Opening:

➔ Push open the folding door (Figure 57/1).

➔ Use the retaining strap (Figure 57/2) to secure the door.

8.14.2 Shower enclosure with magnetic holder

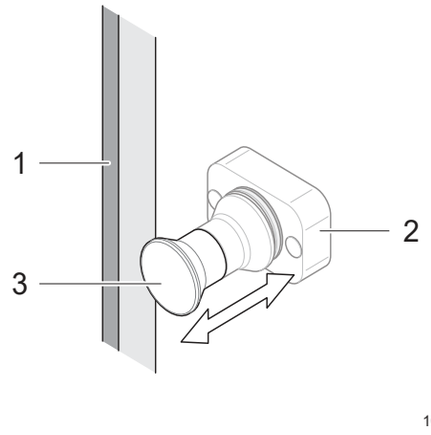


Figure 58 Shower enclosure with magnetic holder

1 Shower door frame with magnetic strip
2 Magnetic holder
3 Handle

Closing:

➔ Close the shower doors until they are retained by the magnetic strip (Figure 58/1).

Opening:

➔ Open the shower doors until the handle (Figure 58/3) is retained by the magnetic holder (Figure 58/2).

8.14.3 Shower enclosure with sash lock

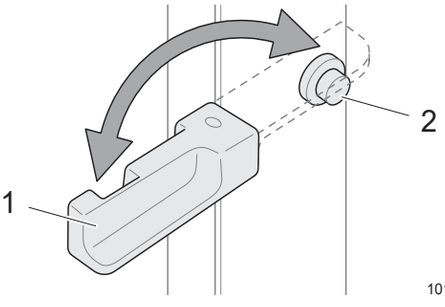


Figure 59 Sash lock on the shower

1 Sash lock
2 Stop

Closing:

➔ Close the shower doors.

➔ Turn the sash lock (Figure 59/1) clockwise until it rests on the stop.

Opening:

➔ Turn the sash lock (Figure 59/1) anticlockwise.

➔ Open the shower doors.

8.15 Toilet door

Caution!

Damage to the toilet door

When the door is not closed during the journey, it can swing open in an uncontrolled manner or shut with a bang.

➔ Always close the toilet door before setting off. The door lock will click into place.

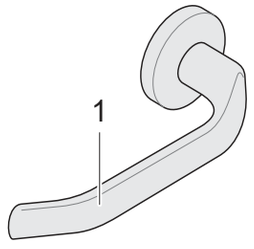


Figure 60 Toilet door handle

1 Door handle

Closing the toilet door:

➔ Pull the door by the handle (Figure 60/1).
The door lock is held in position by a magnet.

Opening the toilet door:

➔ Push the door handle (Figure 60/1) down and open the door.

8.16 Room divider

Caution!

Damage to the sliding door

Unless the door is secured it can open or close unrestricted during the journey and get damaged.

➔ Always secure the sliding door with the retaining strap before starting your journey.

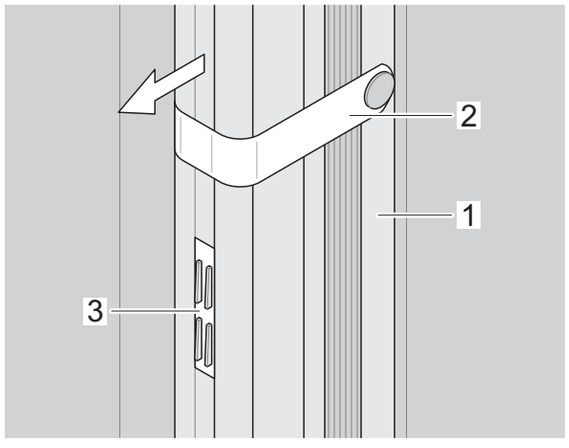


Figure 61 Sliding door when open

1 Sliding door
2 Retaining strap
3 Magnetic catch

Closing the sliding door:

➔ Release the holding strap (Figure 61/2).

➔ Carefully close the sliding door (Figure 61/1) until the magnetic catch (Figure 61/3) catches.

Opening the sliding door:

➔ Carefully open the sliding door (Figure 61/1) all the way.

➔ Use the retaining strap (Figure 61/2) to secure the door.

8.17 TV set with satellite system (optional)

The vehicle has been prepared for the installation of a TV system:

- A location on the roof is intended for the installation of a satellite dish.
- Antenna cables and sockets have already been installed.

Caution!

Risk of accident and damage to the vehicle

Failure to fully retract and secure the satellite dish may result in the satellite dish detaching when driving. This may lead to accidents or cause damage to the satellite dish and the vehicle.

➔ Before setting off, always verify that the satellite dish is completely retracted and secured.

Note!

For further information on how to install a TV set with satellite system, please contact your ***ADRIA*** dealer.

8.17.1 TV connection with 12-volt socket

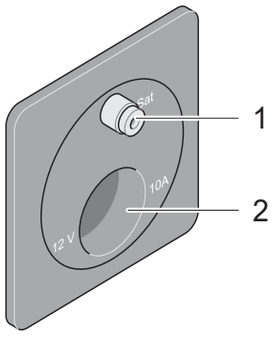


Figure 62 TV connection with 12-volt socket

1 TV connection
2 12-volt socket

8.17.2 Universal external socket

The universal external socket (Figure 63) is located under a hatch (Figure 64/1) on the vehicle's left or right outer wall.

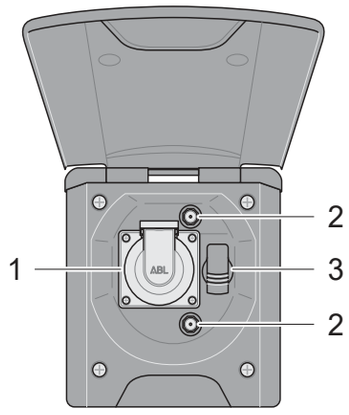


Figure 63 Universal external socket

1 230-volt socket
2 TV connection
3 12-volt socket

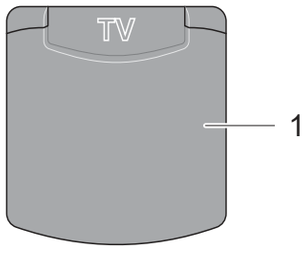


Figure 64 Hatch of the universal external socket

1 Hatch of the universal external socket

8.17.3 TV bracket

Caution!

Damage to the TV set

➔ Verify that the TV bracket has latched in locking position before each journey.

➔ When pulling out the TV bracket, make sure that there is enough space for the device to move freely.

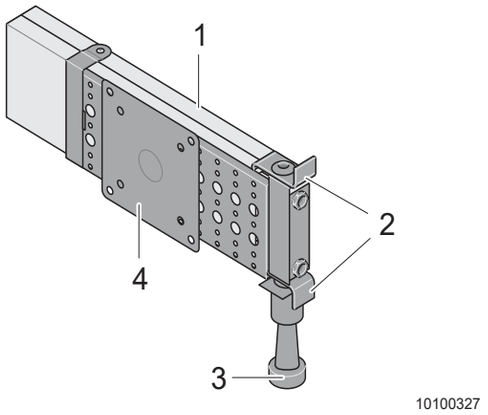


Figure 65 TV bracket

1 TV bracket
2 Joint
3 Locking lever
4 TV mounting plate

Sliding the TV bracket out:

➔ Pull down the locking lever (Figure 65/3) and fully pull out the TV bracket (Figure 65/1). When fully extended, the TV bracket can pivot around the joint (Figure 65/2).

Sliding the TV bracket in:

➔ Swing the TV bracket (Figure 65/1) back to its initial position.

➔ Push back the TV bracket until the locking lever (Figure 65/3) engages with a click.

Note!

Please observe the separate manufacturer's operating instructions for information on how to attach the TV set to the mounting plate.

9 Sleeping

9.1 Beds

All beds in the vehicle rear and in the alcove are firmly installed and do not require preparation before use.

Warning!

Risk of accident

- ➔ Do not use beds to store luggage during the journey.
- ➔ Only leave the required bed linen on the bed during the journey.
- ➔ Never allow small children to remain in the bed without supervision.
- ➔ Make sure that children under 6 years of age cannot fall out of the bed.
- ➔ Place infants in suitable separate cots or travel cots.
- ➔ Only use the alcove bed and the upper bunk bed with the safety net fixed in place.
- ➔ The maximum load of the bunk bed is 70 kg.
- ➔ If not in use, store the ladder in a safe place.

9.1.1 Alcove beds and bunk beds

The vehicles are fitted with alcove beds and/or bunk beds depending on the model. The alcove and bunk beds can be used without conversion work.

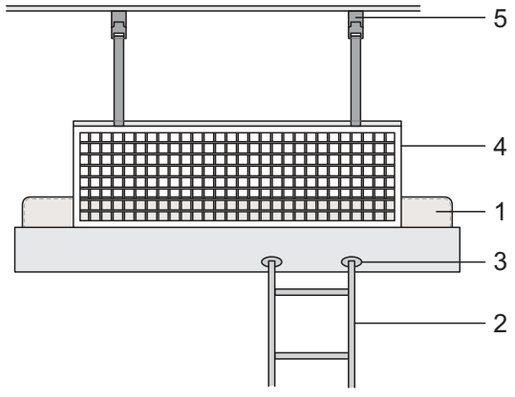


Figure 66 Bunk bed - safety net

1 Bunk bed (upper)
2 Ladder (optional)
3 Hook-in holes on the bunk bed (optional)
4 Safety net
5 Buckle latch safety net

- ➔ Use the ladder (Figure 66/2) to access the upper bunk bed (Figure 66/1).
- ➔ Hook the ladder (Figure 66/2) into the holes (Figure 66/3) provided for this purpose.
- ➔ Attach the safety net (Figure 66/4) using the buckle latches (Figure 66/5) in the vehicle roof (Figure 66/1) once you are in bed.

9.1.2 Raising the slatted frame headboard

Some vehicle models are fitted with an adjustable headboard on the slatted frame.

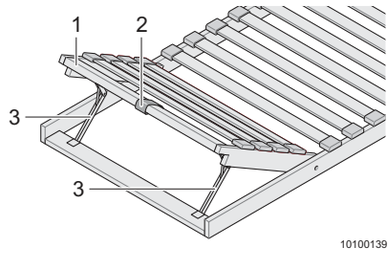


Figure 67 Slatted frame headboard - adjustable in height

1 Headboard
2 Belt
3 Hold-open hinge

Raising the slatted frame headboard:

➔ Raise the slatted frame using the belt (Figure 67/2) at the headboard (Figure 67/1).

➔ Pull up to the desired height, the hold-open hinges (Figure 67/3) snap into place automatically.

Lowering the slatted frame headboard:

➔ Raise the slatted frame using the belt (Figure 67/2) at the headboard (Figure 67/1) to the highest position until the snapping mechanism is released.

➔ Keep holding the headboard and slowly lower it down.

9.1.3 Electrically operated lifting bed

Danger!

Risk of injury when falling out of the lifting bed

There is a risk of injury when the lifting bed is not properly secured.

➔ Properly attach the safety net before using the lifting bed.

➔ Children are not allowed to use the lifting bed unattended.

➔ Make sure that children under 6 years of age cannot fall out of the bed.

Danger!

Danger of accident and injury

Improper use of the lifting bed can lead to accidents and injuries.

- ➔ Before lowering the lifting bed, check if there are persons in the danger zone.
- ➔ Before setting off with the vehicle, raise the lifting bed all the way to its topmost position and secure it with the two straps.
- ➔ Do not use the lifting bed to store luggage during the journey.
- ➔ Place only the required bed linen on the lifting bed during the journey.
- ➔ Before using it, lower the lifting bed to its lower end position.
- ➔ Only the required bedding must be on the bed during lowering and lifting of the lifting bed.
- ➔ Do not exceed the total load of 200 kg. The maximum load indicated on the labels on the lifting bed must be observed. The maximum load specification only applies to the completely lowered lifting bed (end position).
- ➔ If not in use, store the ladder in a safe place.

Caution!

Damage to the furniture or the lifting bed

Improper use of the lifting bed can cause damage to the furniture and the lifting bed.

- ➔ On models with L-shaped seating area place the table in the middle to ensure that the storage compartments under the lifting bed do not collide with the table.
- ➔ Distribute the weight evenly when loading the storage compartments under the lifting bed. Major differences in weight distribution (right and left) could make the lifting bed tilt to one side. This might damage the mechanism for lowering and lifting the bed.
- ➔ Before you lift the bed distribute the bedding evenly and flatly on the lifting bed.
  - – If the bedding is distributed unevenly or left in one spot the lifting bed might topple over during lifting when the heaped bedding touches the ceiling. In this case stop lifting the bed immediately.
  - – If the evenly distributed bedding is still too high, remove excess bedding and restart the lifting process.

Caution!

Damage to the lifting bed

If the lifting bed stops between the upper or lower end position, do not attempt to raise or lower the lifting bed any further. This might damage the electric drive system.

- ➔ Let the lifting bed return to its initial position and restart the lowering or lifting process.
- ➔ Always ensure that the lifting bed reaches its upper or lower end position.

Note!

The operating range of the lifting bed must be free of any obstructions when lowering or raising the lifting bed.

Depending on the model:

➔ Fold down the seats in the driver's cab.

➔ Remove the headrests from the backseat bench (see section 9.1.5).

➔ Remove the upholstery and cushions from the seating group.

Note!

Temperatures below 15 °C inside the vehicle may impair the operability of the lifting bed significantly.

➔ Heat up the interior of the vehicle to at least 15 °C before starting to lower or raise the lifting bed.

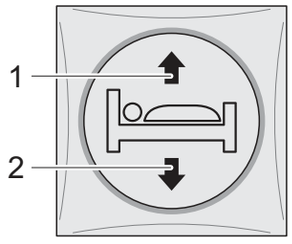


Figure 68 Push-button for the electrically operated lifting bed

1 Raising the lifting bed
2 Lowering the lifting bed

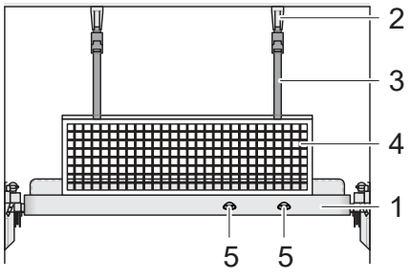


Figure 69 Electrically operated lifting bed

1 Lifting bed
2 Ceiling belt holder
3 Retaining belt
4 Safety net
5 Hook-in holes for ladder

Lowering the electric lifting bed:

➔ Black out the window using the view protection.

➔ Press and hold the lower arrow (Figure 68/2) on the push-button until the lifting bed has reached the lower end position.
The lifting bed will automatically stop when it has reached the lower end position.

➔ Hang the ladder into the hook-in holes (Figure 69/5) on the lifting bed.

➔ Attach the safety net (Figure 69/4) on the bed using the retaining straps (Figure 69/3) and the buckle latches (Figure 69/2) in the vehicle roof.

Raising the electric lifting bed:

➔ Unfasten the safety net (Figure 69/4) from the ceiling.

➔ Place the bed linen flat on the bed.

➔ Unhook the ladder and stow it away safely.

➔ Make sure that the curtain protection does not get caught in the lifting bed mechanism.

➔ Press the upper arrow (Figure 68/1) on the push-button until the lifting bed has reached the upper end position.
The lifting bed will automatically stop when it has reached the upper end position.

Note!

The automatic fuse stops the process if the electric lifting bed is overloaded.

➔ Remove the cause of the overload.

➔ Press the button to reset the overload protection. The button is located near the control panel.

9.1.4 Height-adjustable bed in the rear

Depending on the model, it is possible to raise and lower the bed in the rear electrically. Raising and lowering the bed allows enlarging or reducing the space inside the rear garage.

Danger!

Risk of injury

Limbs can get crushed or caught when raising or lowering the bed.

➔ Never allow small children to remain in the bed without supervision.

➔ There must be no persons within the range of movement while the bed is raised or lowered.

➔ Never reach into the mechanism of the bed with your hands.

Caution!

Damage to the rear garage or the stowage in the rear

When lowering the height-adjustable bed, objects that are too high (such as bicycles) or objects stowed inside the rear garage can damage the rear garage.

➔ Remove all objects potentially obstructing the lowering process from the rear garage before lowering the bed.

Caution!

Damage to the bed or to objects lying on the bed

The height-adjustable bed or any objects lying on the bed (such as blankets or pillows) can get damaged when raising or lowering bed.

➔ Clear the bed's sleeping surface before raising or lowering the bed.

The button for activating the raising and lowering mechanism of the height-adjustable bed is located in the rear garage.

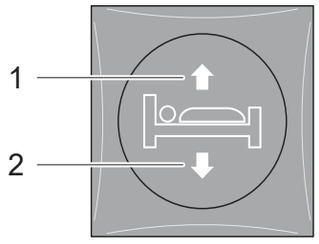


Figure 70 Button for height-adjustable bed

1 Raise bed
2 Lower bed

Raising the bed:

➔ Press and hold the button (Figure 70/1) in the upper area until the bed has reached the required position.

Lowering the bed:

➔ Press and hold the button (Figure 70/2) in the lower area until the bed has reached the required position.

9.1.5 Adjusting or removing the headrest

The vehicle is equipped with adjustable headrests on the seating group.

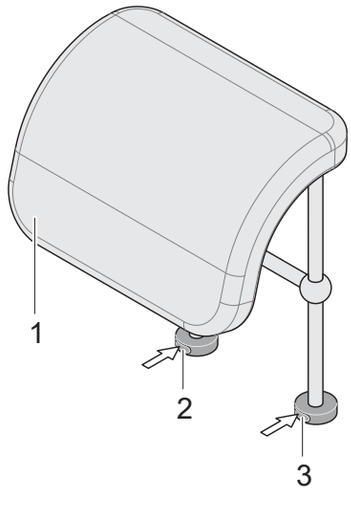


Figure 71 Adjusting or removing the headrest

1 Headrest
2 Catch right
3 Catch left

Adjusting height of headrest:

➔ Press and hold catch on the left side (Figure 71/3).

➔ With the other hand move the headrest (Figure 71/1) into the desired position.

➔ To fix the position of the headrest, let go of the catch.

Removing headrest:

➔ Press and hold catch on the right side (Figure 71/2).

➔ With the other hand pull the headrest (Figure 71/1) up out of the mounting.

Correspondingly, the headrest is fitted in reverse sequence.

9.2 Converting the seating group into a bed

9.2.1 Lowering the table

9.2.1.1 Suspended table

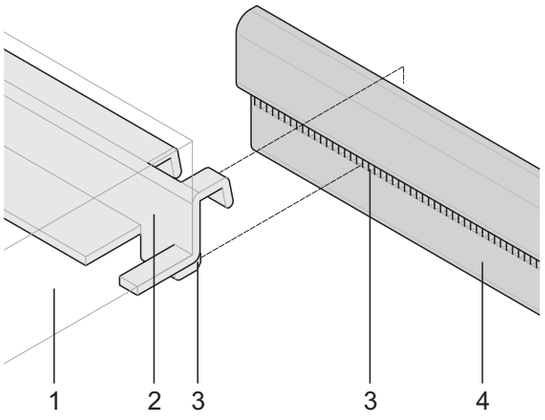


Figure 72 Lowering the table

1 Table top
2 Table attachment rail
3 Attachment rail catch
4 Attachment rail wall

➔ Slightly lift the table top (Figure 72/1) by the free end (approx. 30°). This unlocks the catch (Figure 72/3).

➔ Lift the table top out of the upper attachment rail (Figure 72/4).

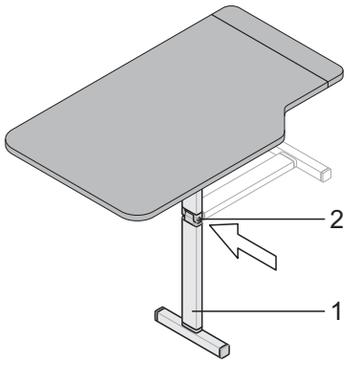


Figure 73 Fold the table leg

1 Table leg
2 Locking button

➔ Press the locking button (Figure 73/2). The lock of the table leg (Figure 73/1) is released.

➔ Fold the table leg by 90°.

➔ Then place the table in the bottom position against the seat.

9.2.1.2 Lowering the table with extendable base:

Please refer to the section 8.12.4 for further information on how to lower the table with extendable base.

9.2.2 Converting the seating group into a bed in the driving direction

For vehicles with full dinette, the seating group can be converted into a bed in the driving direction:

Converting to a bed:

- ➔ Depending on the vehicle equipment, unlock the bench extensions and pull the extensions out to the side.
- ➔ Lower the suspended table (Chapter 9.2.1).
- ➔ Depending on the vehicle equipment, insert the additional board near the wall between the seat benches.
- ➔ Push the seat cushions together and turn the backrest cushions over.
- ➔ Depending on the equipment on the vehicle, this may result in a small gap between the cushions. Close the gap with the additional cushion.

Re-conversion:

- ➔ Reconvert the seating group in reverse sequence.

9.3 Slide-Out bed (Compact only)

Warning!

Risk of damage and hazard

- ➔ Remove any upholstery and objects from the area before retracting the slide-out.
- ➔ Make sure that the slide-out is completely retracted before starting to drive.
- ➔ In winter make sure the rubber seals are not frozen before moving the slide-out in or out.
- ➔ When you're moving the slide-out in or out pay attention that the motors are not working out of sync and that all four corners are moving evenly.
- ➔ If only one part of the slide-out is moving stop it immediately and call customer service.

Note!

Before you slide the bed out, make sure that the living area battery is fully charged and connected.

Activating the Slide-Out System:

- ➔ Touch the sensor "AUX" (Figure 35/4, illuminated in red) on the control panel (Chapter 8.8.1).
  The display (Figure 35/11) of the control panel (Figure 35) shows "ton" (timer ON, illuminated in green).
  The slide-out system is now activated for 10 minutes.

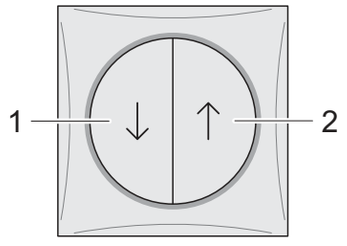


Figure 74 Slide-out switch

1 Switch „Slide in"
2 Switch „Slide out"

Sliding out:

- ➔ Press and hold the switch "Slide out" (Figure 74/2) until the slide-out mechanism stops automatically.

Sliding in:

- ➔ Press and hold the switch "Slide in" (Figure 74/2) until the slide-out mechanism stops automatically.

Note!

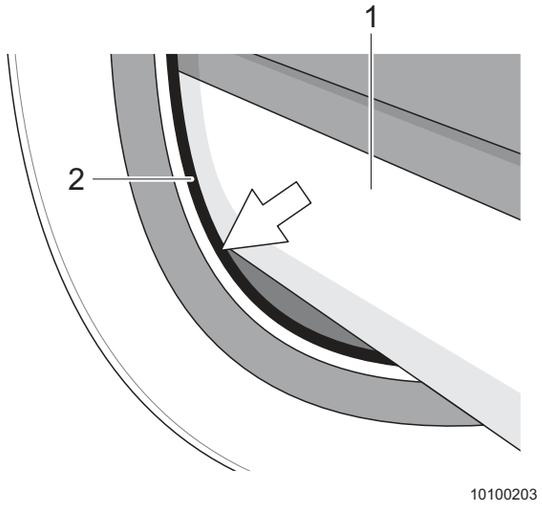
If the slide-out mechanism does not move when the switch (Figure 74) is pressed, the activation period (10 minutes) on the control panel (Figure 35) has elapsed.

➔ Re-activate the slide-out system by touching the sensor “AUX” (Figure 35/4) on the control panel (Chapter 8.8.1).

➔ If the slide-out system still fails to move or only moves partially, stop the process immediately and contact customer service.

The electronics and the transformer/rectifier of the slide-out system are located in the area of the slide-out switch (Figure 74) under the seating surface.

The fuse of the slide-out system (30 A maximum) is located near the transformer/rectifier under the seating surface.



1 Slide out
2 Rubber seal

Figure 75 Slide-out rubber seal

Caution!

Damaging the slide-out

The rubber seal of the slide-out system can be permanently damaged if it is insufficiently greased or dry.

➔ The rubber seal (Figure 75/2) between the vehicle exterior and the slide-out (Figure 75/1) must always be clean and greased.

➔ Grease the rubber seal after moving the slide-out mechanism in and out 10 to 15 times (or at least twice per year).

➔ To prevent permanent damage to the slide-out system only operate it when the rubber seal is sufficiently greased.

10 Power supply

10.1 General information

Your vehicle is equipped with a 230-V circuit and a 12-V circuit (direct current).

The appliances operated on the vehicle's 12-V supply system can be operated independently of an external 230-V 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!

Danger from 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 for short circuit, corrosion and cable-break by an authorised 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.
- ➔ Improper maintenance and repair work voids your warranty claims.

Caution!

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, radio sets, 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.

10.2 Power supply 230 V

10.2.1 Establishing the electrical connection between the vehicle and the power source

Caution!

Danger of overheating of the cable on the cable reel

➔ Always unroll the cable completely from the cable reel. This prevents overheating of the cable.

➔ Use a cable reel with integrated overheat protection.

Note!

Connectors and sockets do not fit in every country.

It is possible that an adapter set is required for the country being visited.

The CEE input socket (Figure 76/1) is located behind a hatch (Figure 77/1) on the vehicle's left or right outer wall.

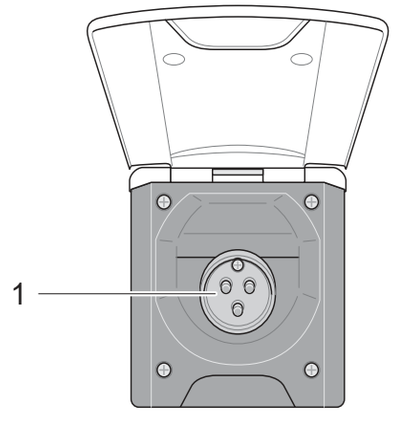


Figure 76 CEE input socket

1 CEE input socket

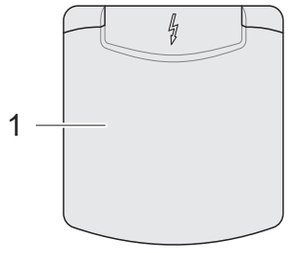
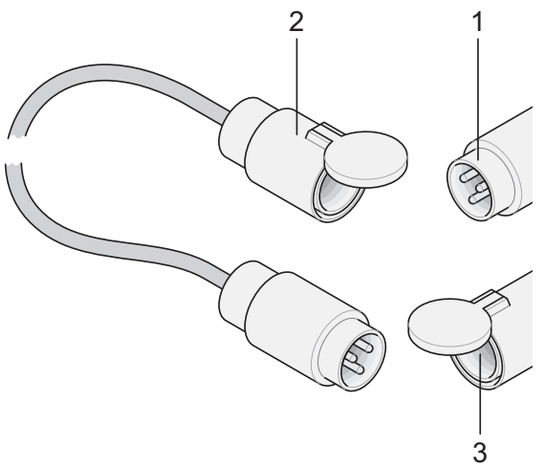


Figure 77 CEE input socket hatch

1 CEE input socket hatch

The connection of the vehicle to the external 230 V power supply must be established with a rubber sheathed cable "H0 RN-F 3G 2.5 mm^2" or an equivalent cable with connectors according to "IEC 309". The overall length of the electric cable should not exceed 25 m!



1 CEE motorcar input socket
2 CEE extension cable (optional) with a minimum cross-section: 2.5 mm²
3 Power source

Figure 78 230-V mains connection

Connecting:

➔ When making the connection, always begin on the vehicle and make the connection to the power source last.

Disconnect in reverse sequence.

10.2.2 Fuse protection of the 230-V electric circuit in the vehicle

The external 230-V power supply of the vehicle is protected with a 13-A circuit breaker. In addition to the circuit breakers, a ground-fault circuit breaker (optional) is installed in some vehicles.

The ground-fault circuit breaker protects persons against electric shock if the insulation of electrical appliances is defective.

Note!

Check the ground-fault circuit breaker for fault-free operation monthly or, after a longer period of standstill of the vehicle, before starting each journey.

The fuse box with circuit breakers and ground-fault circuit breaker is normally installed in the wardrobe or a seat chest.

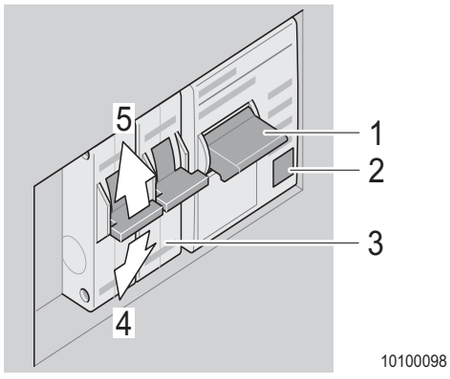


Figure 79 230-V circuit breaker

1 Ground-fault circuit breaker
2 “Test” button of ground-fault circuit breaker
3 Circuit breakers
4 "Off" position
5 "On" position

Checking the ground-fault circuit breaker:

➔ Press the "Test" button (Figure 79/2) of the ground-fault circuit breaker with the 230-V power supply connected.
The ground-fault circuit breaker(Figure 79/1) triggers, the switch handle springs to the "Off" position.

➔ Switch the handle of the ground-fault circuit breaker back to the "On" position after the successful test.

Switching on the circuit breaker:

➔ To switch on the circuit breaker (Figure 79/3) push the switch handle upward.

When the circuit breaker has triggered, wait for a short time before switching on again.

- If the circuit breaker remains on, only an overload occurred.
- If the circuit breaker immediately triggers again, this is due to a short-circuit or earth fault. Consult an authorised workshop and have the fault repaired.

Note!

It makes no sense to switch the breaker on several times. The circuit breaker triggers even when you hold the switch handle.

10.3 Power supply - external generator (optional)

Caution!

Damage to vehicle electronics

➔ Voltage variations or voltage peaks must not occur.

➔ Only establish a connection between the generator and the vehicle when the generator is in operation and the output voltage is constant.

➔ Switch the generator off only after the connection between the vehicle and the generator has been disconnected.

For further information, please refer to the manufacturer's separate operating instructions.

10.4 Power supply 12 V

10.4.1 Power Supply Unit (PSU)

The PSU is the central power distribution unit of your vehicle. The PSU is used for charging the living area battery and for the power supply of the 12-V appliances. When the living area battery is fully charged, the PSU automatically charges the starter battery of the base vehicle.

Danger!

Danger from electric shock

Improper use of the PSU can cause serious injury or death.

- ➔ Do not carry out any maintenance or repair work on the PSU.
- ➔ If cables or the housing of the PSU are damaged, do not use the PSU and disconnect it from the 230-V power supply.
- ➔ Do not allow any liquids to penetrate the device.
- ➔ The power cord must only be replaced by an approved customer service technician or a qualified person.

Warning!

Risk of burns

Parts of the PSU can get hot during operation.

- ➔ Do not touch the PSU during operation.
- ➔ Do not cover the area surrounding the PSU.
- ➔ Do not store any objects that are sensitive to heat in the vicinity of the device (e.g. clothing that is sensitive to temperature).

Caution!

Damage to the PSU

- ➔ Replace defective fuses only when the PSU has been de-energised.
- ➔ Replace defective fuses only when the cause of the defect is known and has been remedied.
- ➔ Do not bridge or repair fuses.
- ➔ Use only original fuses with the values specified on the PSU.
- ➔ Do not lay any cables underneath the PSU due to the heat emission.

10.4.1.1 PSU EBL 227

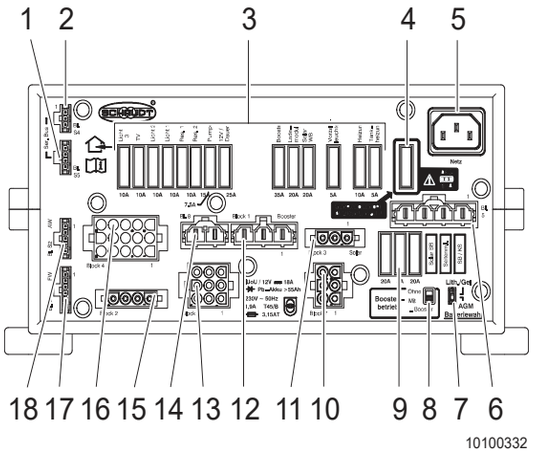


Figure 80 PSU EBL 227 – front view

1. LIN bus (serial) and “Load” signal
2. LIN bus (serial)
3. Blade fuses
4. Fuse, AES refrigerator
5. Mains supply 230 V AC
6. Refrigerator and entrance step
7. Battery selector switch
8. Selector switch, connected via booster
9. Motor vehicle blade fuses for solar controller / starter battery, side marker lights or refrigerators / starter battery
10. Supply for refrigerator, pump, refrigerator control
11. Solar controller
12. Booster port
13. Supply for appliances, output side marker lights
14. 12 V continuous - 25 A
15. Living area battery sensor
16. Supply for appliances
17. Waste water probe/sensor
18. Fresh water probe

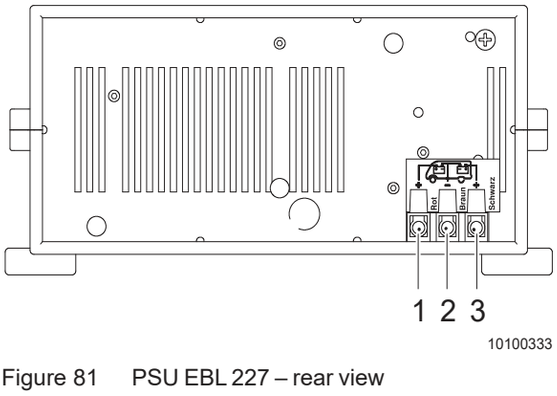


Figure 81 PSU EBL 227 – rear view

1. Starter battery connection
2. Common chassis ground connection
3. Living area battery connection

Before switching on the PSU:

➔ Verify that the battery selector switch (Figure 80/7) is in the correct position.

➔ Make sure the starter battery (Figure 81/ 1) and the living area battery (Figure 81/ 3) are connected.

➔ If necessary, deactivate the battery isolator (see 10.5).

Switching the PSU on and off:

➔ The PSU can be activated and deactivated using the On/Off switch on the control panel (see Chapter 8.8).

Vehicle blade fuses

- Insert the fuse for the AES refrigerator only when an AES refrigerator (optional) is connected. Otherwise, the living area battery can be deeply discharged. Damage to the battery cannot be excluded.
- The blade fuses (Figure 80/3) and (Figure 80/9) protect the different electric circuits.

Battery selector switch

Caution!

Damage to the living area battery

➔ Setting the battery selector switch (Figure 80/7) to the wrong position can damage the living area battery.

➔ If you want to install a different type of battery, please contact your local ***ADRIA*** dealer.

For further information, please refer to the manufacturer's separate operating instructions.

10.4.1.2 PSU NE 350

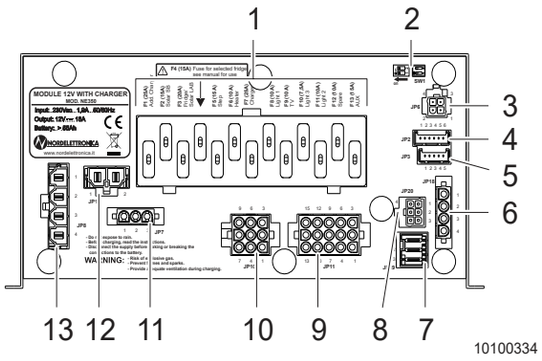


Figure 82 Transformer/rectifier NE 350 – front view

1. Blade fuses
2. Switch SW1 for DC/DC converter
3. Connection JP6 for control panel
4. Connection JP2 for fresh water tank (S1)
5. Connection JP3 for waste water tank (S2)
6. Connection JP18 for input D+ control, supply
7. Connection JP19 for 12-V output
8. Connection JP20 for input / bus_2
9. Connection JP11 for current output 2
10. Connection JP11 for current output 1
11. Connection JP7 for solar module
12. Connection JP17 for AUX battery charger
13. Connection JP8 for output refrigerator

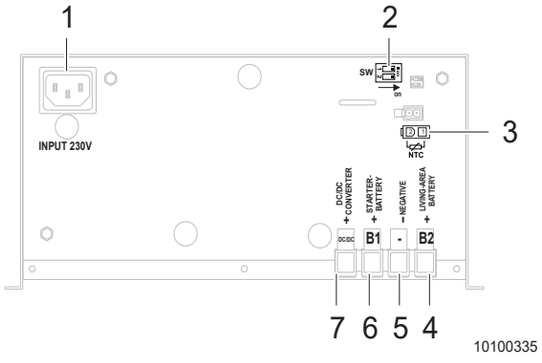


Figure 83 PSU NE 350 – rear view

1. 230-V mains connection
2. Battery selector switch
3. Input for battery temperature sensor
4. Living area battery input (B2)
5. Ground
6. Starter battery input (B1)
7. Output for DC/DC converter

Before switching on the PSU:

➔ Verify that the battery selector switch (Figure 83/2) is in the correct position.

➔ Make sure the starter battery (Figure 83/ 6) and the living area battery (Figure 83/ 4) are connected.

Switching the PSU on and off:

➔ The PSU can be activated and deactivated using the On/Off switch on the control panel (see Chapter 8.8).

Blade fuses:

➔ The blade fuses (Figure 82/1) protect the different electric circuits.

Battery selector switch

Caution!

Damage to the living area battery

➔ If the battery selector switch (Figure 83/2) is set to the wrong position, the living area battery could become damaged.

➔ If you want to install a different type of battery, please contact your local ***ADRIA*** dealer.

For further information, please refer to the manufacturer's separate operating instructions.

10.4.2 Starter battery

If the vehicle is externally connected to the 230 V power source (Chapter 10.2.1), an automatic changeover from 12 V to 230 V / 12 V (power supply unit) occurs.

When the vehicle is connected to the 230-V mains supply, the starter battery is charged with approx. 5 amps.

As soon as the starter battery's voltage drops below a certain level, the system will initiate a trickle charge. Once the starter battery is fully charged, the trickle charge is deactivated.

10.4.3 Living area battery

Warning!

Deflagration

Lead-acid batteries can produce electrolytic gas which may result in deflagration.

➔ It is not permitted to use lead-acid batteries as living area batteries. The installation area is not equipped for accommodation of a lead-acid battery.

➔ Only gel or AGM, or lithium batteries may be used as living area battery.

The electronic energy centre is equipped with a 70 A disconnect relay. This integrated protection disconnects the living area battery from the starter battery when the engine is switched off so that the function of the starter battery is maintained.

The living area battery can be charged in two ways:

- Using the vehicle generator, i.e. while the engine is running.

All major appliances, such as the refrigerator, heater, water pump, etc., must be switched off. The battery should then be "fully" charged at the 230 V mains.

- By means of connecting the system to the 230-V mains.

This charges the battery automatically. All major appliances must be switched off.

Regularly check the battery voltage on the control panel (Chapter 8.8):

- If the voltage is 12 V or higher or in the green area, everything is okay.
- If the voltage is less than 12 V or in the red area, switch off all appliances immediately and charge the battery. The minimum charging time should be 24 hours or better 48 hours. Overcharging is automatically prevented by the battery charger.
- If the "Battery alarm" warning light blinks, the battery must be charged immediately for a minimum of 48 hours with the built-in automatic battery charger or a separate charger. For this purpose, the vehicle must be connected to the 230-V power supply. If the battery voltage has dropped below 3 V, the engine must be started for approx. 10 seconds so that the battery charger is switched on. Then charge the battery for a minimum of 48 hours.

Note!

- Before and after each use of the vehicle, the battery should be charged with the battery charger, if possible, for more than 24 hours.
- If you are on the way for a longer journey, the battery should be "fully" charged at least once a month via the 230 V mains.
- If the vehicle is not used for a longer period of time, all appliances must be switched off (pay attention to hidden appliances, for example satellite system, tank heating, boiler safety valve, etc.). The easiest way to do this is to disconnect the plus pole directly on the battery. Charge the battery once a month with the built-in battery charger or a minimum of 24 hours.
- The warranty for the auxiliary battery is valid only when it is serviced properly.

You will find further information on charging and maintaining the batteries in the separate instruction manual from the manufacturer.

10.4.4 Control panel (optional)

For further information on the control panel, please refer to the Chapter 8.8.

10.5 Battery disconnect switch

You can disconnect the living area battery from the electrical circuits using the battery disconnect switch. The battery disconnect switch can be used in an emergency (e.g. accident) to disconnect the living area battery from the electrical circuits.

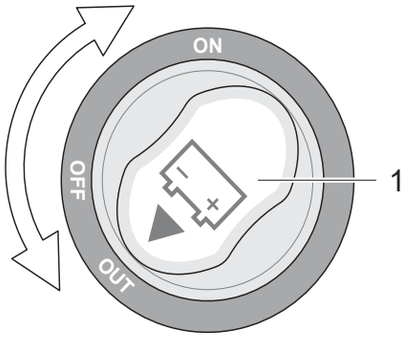


Figure 84 Battery disconnect switch

1 Key of the battery disconnect switch

Caution!

Damage to the electrical system

Only using the battery disconnect switch to isolate the circuits may cause damage to the electrical devices.

➔ Only use the battery disconnect switch in case of emergency (e.g. accident) to disconnect the living area battery from the electrical circuits.

➔ If you would like to disconnect the living area battery from the electrical circuits while the vehicle is out of service, first turn off the main button on the control panel and then the battery disconnect switch.

Disconnecting the 12-V power supply to the living area:

➔ Turn the key of the battery disconnect switch (Figure 84) to the “OFF” position.

➔ Turn the key of the battery disconnect switch to the “OUT” position to remove it.

Connecting the 12-V power supply to the living area:

➔ Insert the key of the battery disconnect switch (Figure 84) and turn it to the “ON” position.

10.6 Fuses

Warning!

Risk of burns

➔ Replace defective fuses only when the PSU has been de-energised.

Caution!

Damage to the electrical system

➔ Replace defective fuses only when the cause of the defect is known and has been remedied.

➔ Never bridge or repair fuses.

➔ Use only original fuses with the same rating.

Fuses protect the electrical system and the electrical appliances from damage by overloading and short circuits. If the amperage is too high, a fuse automatically interrupts the electric circuit.

The electric fuses are accessible at different installation locations in the vehicle.

The appliances that are connected to the 12-V supply in the living area are protected by their own fuses.

Before changing fuses, see the following table for function, value and colour of the respective fuses:

Amperage	Colour	Function	Installation location
2 A	Grey	Fuse of the living area battery	Next to the living area battery
3 A	Violet	Fuses of Thetford toilet	In the housing frame of the Thetford cassette
5 A	orange / light brown	–	–
7.5 A	Brown	–	–
10 A	Red	–	–
15 A	Blue	–	–
20 A	Yellow	Fuse of refrigerator	Next to or in the PSU
50 A	Red	Fuse of 12-V power supply unit	Next to the living area battery

Tab. 4 Fuses

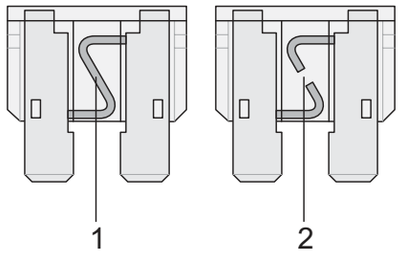


Figure 85 12-V fuse

1 Intact fuse element
2 Interrupted fuse element

Changing the fuses:

➔ A fuse must be changed when the fuse element is interrupted.

10.7 USB port

10.7.1 USB charging port

Caution!

Damage to the connected device

➔ Only devices that are suitable for that purpose may be connected to the USB charging ports.

➔ Devices connected to this port must be designed for a voltage of 5 volts.

On some models, there is a USB charging port in the living area.

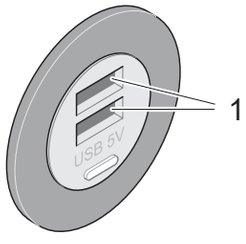


Figure 86 USB charging port

1 USB ports

USB ports are only supplied with electric power when the control panel is switched on.

10.7.2 USB port on the LED spot

Depending on the model, some vehicles are equipped with LED spots and USB ports (see Chapter 8.9.4).

10.8 Solar system (optional)

Caution!

Damage to the solar system

- ➔ Maintenance and repair work must only be carried out by an authorised workshop.
- ➔ Clean the solar modules with a soft brush, large amounts of lukewarm water and a neutral household cleaner.
- ➔ Do not use alcohol-based cleaners (common glass cleaners). These can damage the surface of the solar modules.
- ➔ Regularly check the screwed connections and bonded joints of the solar system on the roof for tight fit and tightness.
- ➔ Regularly check cables and controls for damage. Regularly check the safe electrical connection of the plugs and contact.

The solar system allows charging the batteries of the vehicle without using a 230-V power supply. The solar system charges the batteries on sunny days and on days with less intensive solar radiation.

The solar system makes you less dependent on connecting your vehicle to a 230-V supply during your trip.

The time it takes to charge the batteries depends on the installed capacity of the solar system and the intensity of the solar radiation.

The control panel indicates the state of the charging process of the batteries (Chapter 8.8).

10.9 12V/230V inverter (optional)

An inverter is an electrical device which converts the 12 V direct current (DC) from the living area battery into 230 V alternating current (AC). This allows you to run 230 V electrical devices with low consumption.

Overload protection is normally integrated in the inverter to protect the living area battery from overload and deep discharge.

Note!

If you want to install an inverter in your vehicle, please contact your local ADRIA dealer.

For further information, please refer to the manufacturer's separate operating instructions.

11 Gas supply

11.1 General information about the gas system

Familiarise yourself with the safety instructions for handling gas.

For general safety instructions concerning the topic of "gas", see Chapter “2.5 Safety instructions for the gas system”.

Danger!

Poisoning by gas

If you smell gas or suspect that gas is escaping, proceed as follows:

- ➔ Clear the danger area!
- ➔ Close the shut-off valve on the gas cylinder!
- ➔ Avoid ignition sources and open flames and do not smoke!
- ➔ Provide ventilation through the rooms!
- ➔ Inform the camping site manager, and the fire brigade when necessary!

Danger!

Risk of explosion

Gas appliances must not be operated during refuelling, in multi-storey car parks, in a garage or on a ferry.

- ➔ Close the quick-action stop valves.
- ➔ Close the gas cylinder valves.

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 valves in the meantime.

11 Gas supply

Warning!

Danger to life

- ➔ Have repairs or modifications of the gas system performed by an authorised workshop only!
- ➔ Never modify the gas system or appliances yourself!
- ➔ Never use a lighter or other open source of light at the junctions of the gas pipes to look for leaks!
- ➔ The user may make only the connection between the pressure regulator and the gas cylinder! Any other work has to be performed by an authorised workshop!
- ➔ Gas-operated appliances may only be used for the purpose for which they are intended.

Note!

- ➔ The complete gas system in the vehicle is designed for an operating pressure of 30 mbar which is kept constant by the built-in pressure regulator.
- ➔ The gas system must be inspected again every two years and after making any modifications and repairs. Always have a gas leak test performed on this occasion. The vehicle owner is responsible for initiating the inspection. When the vehicle is handed over to the operator, she/he must be informed in writing of her/his duty to have the gas system inspected. The correct condition of the gas system is confirmed with a gas inspection certificate. The associated gas inspection sticker must be attached to the rear of the vehicle near the license plate.
- ➔ The gas regulator and the gas hose must be replaced every ten years.

- The complete gas system has been designed according to the valid technical regulations for liquefied gas equipment and burners in camping vehicles. This was examined and certified by an expert.
- All installed gas-operated appliances have safety devices. When the flame goes out, the automatic flame failure device interrupts the gas supply. In spite of this safety device, the respective quick-action stop valve must be closed if the appliance is not in operation.
- In order to ensure continuous exchange of air in the vehicle, do not cover the forced ventilation in the roof hoods and in the entrance nor the mushroom ventilators.
- When there is snowfall in winter, keep the forced ventilation free from ice and snow! (Chapter 17.3).

11.2 Gas locker

Caution!

Gas locker

➔ Always keep the forced ventilation in the floor free!

➔ Always keep gas cylinders upright and lashed.

➔ Do not use the gas locker as storage space. Danger of fire!

The gas locker is accessible from the outside only.

The gas locker is intended for storing the gas cylinders. Do not cover the forced ventilation.

Secure the gas locker against unauthorized access.

11.3 Gas types

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

The dealers offer mainly 5 kg or 11 kg gas cylinders for purchase or hiring.

Handling gas cylinders

➔ Store gas cylinders exclusively in the gas locker.

➔ Lock the gas locker securely against unauthorized access!

11.3.1 Propane gas

Propane is a colourless and odourless gas. Propane is capable of gasification down to -42 °C.

Propane is suitable for winter camping.

Propane is highly flammable, heavier than air and, in high concentrations, has a narcotising to suffocating effect.

11.3.2 Butane gas

Butane occurs in two different versions (isomers): Isobutane and n-butane.

Isobutane and n-butane are liquefied gases that are generated when crude oil is distilled.

Isobutane gasifies at -12 °C, n-butane at -0.5 °C. This means, butane is unsuitable for use in winter. Between the seasons, a mixture of butane and propane gas can also be used.

11.3.3 Information on liquefied gas

Liquid gas characteristics:

- Liquid gas has no colour.
- It smells of garlic.
- It is heavier than air and collects on the ground after escaping.
- It is combustible and can burn rapidly when it escapes uncontrolled or explode when sparks occur.
- In enclosed areas, it displaces the breathing air; risk of suffocation!

11.4 Reference values for gas consumption

The gas consumption depends on how intensively the connected appliances are used.

Appliance	Reference value	Unit
Gas heating	170 - 490	g/h
Cooker	100 - 400	g/h
Refrigerator	10 - 25	g/h
Oven	50 - 200	g/h

Tab. 5 Reference values for gas consumption

11.5 Handling gas cylinders

Caution!

Danger when handling gas cylinders

- ➔ Read the safety instructions on the gas cylinder!
- ➔ Operate gas cylinders only with the pressure regulator connected!
- ➔ Do not smoke in the vicinity of the gas cylinders! Any kind of open flame must be avoided! This is valid in particular when replacing gas cylinders.
- ➔ Never lubricate threads and seals on the pressure regulator with grease. Risk of explosion by chemical reactions!
- ➔ The vents in the floor of the gas locker always have to be kept uncovered.
- ➔ Use only gas cylinders provided for the camping sector!
- ➔ Never use special cylinders from other areas of application!
- ➔ Gas cylinders that are not connected must always be secured with a protective cap.
- ➔ The protective cap for the connected gas cylinder must be on board.
- ➔ Pay attention to the inspection date on the gas cylinder!
- ➔ Fill gas cylinders only by weight. This applies also for foreign countries!
- ➔ Never use city gas or natural gas!
- ➔ Never fill gas cylinders at propellant gas stations. Explosion hazard!
- ➔ If the vehicle is parked for a longer period of time, the gas cylinders may remain in the vehicle only when it is parked outdoors!
- ➔ The gas locker is designed for a maximum of two 11 kg gas cylinders.
- ➔ Keep the gas hose free from kinks or tension when connecting it to the gas cylinder.

The screw connections on the gas cylinders have left-hand threads.

The gas cylinders are not part of the delivery items of the vehicle and have to be bought and connected by the operator.

Take utmost care when handling gas cylinders.

Grey gas cylinders with red marking (protective cap and bottom ring) are purchased cylinders and can be replaced or filled.

11.6 Truma MonoControl CS (optional)

The Truma MonoControl CS is a safety gas pressure regulator with integrated CrashSensor for operation with one gas cylinder.

Danger!

Risk of explosion

Rapid burning of gas.

➔ When changing gas cylinders, there is always some gas left in an "empty" gas cylinder.

➔ Smoking and open light or fire are forbidden when handling gas cylinders!

Caution!

Pressure regulators and flexible lines

Pressure regulators and flexible lines must be replaced 10 years after manufacturing at the latest.

➔ The operator is responsible for the replacement.

Caution!

Risk of explosion caused by a leak after changing the gas cylinders

➔ Check the connections of the high-pressure hose for leaks after changing the gas cylinders.

➔ To do this, use a leak detector spray compliant with DIN EN 14291:2005-02.

Note!

With the Truma MonoControl CS gas pressure regulator, operation of a type-tested liquefied gas heater is allowed during the journey throughout Europe (EU Directive 2001/56/EC).

As an option, you can connect a Truma DuoComfort switch-over valve to the gas pressure regulator when using two cylinders.

Use commercially available gas cylinders with 3 kg, 5 kg or 11 kg.

Store the gas cylinders in the gas locker in an upright position and firmly secure them with the straps.

Avoid kinks and tension on the high-pressure hose (Figure 87/4) when connecting it to the cylinder.

11.6.1 Truma MonoControl CS - Putting the device into service

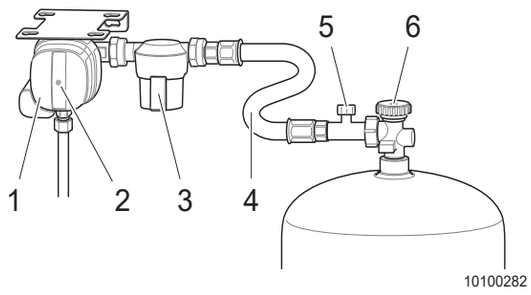


Figure 87 Truma MonoControl CS

1 Truma MonoControl CS
2 Yellow reset button of the crash sensor
3 Gas filter (optional)
4 High-pressure hose
5 Connecting piece with hose rupture protection push button
6 Gas cylinder valve

Putting the Truma MonoControl CS into service:

➔ Connect the gas cylinder and check that the hose connection is free from any defects.
➔ Open the gas cylinder valve (Figure 87/6).
➔ Firmly push in the hose rupture protection push-button (Figure 87/5) for approx. 5 seconds.
➔ If required, repeat the process.
➔ If the yellow reset button (Figure 87/2) is not pushed in, reset the crash sensor (Chapter 11.6.6).

The gas appliances can now be placed into service.

11.6.2 Truma MonoControl CS - Changing gas cylinders

Use the screwing tool provided for screwing the high-pressure hose on and off (Figure 91/1).

The screwing tool ensures the required tightening torque and prevents damage to the screw connection caused by wrong tools.

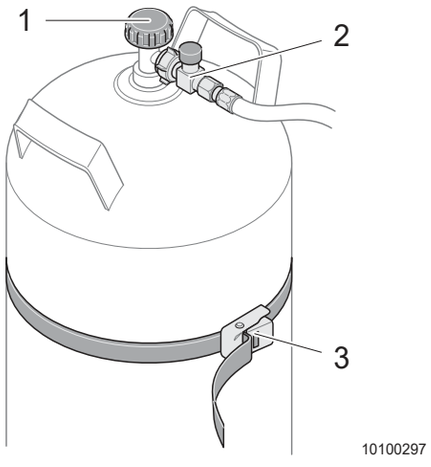


Figure 88 Changing a gas cylinder

1 Gas cylinder valve
2 Connecting piece with hose rupture protection push button
3 Fastening strap

Changing gas cylinders

- ➔ Close the gas cylinder valve (Figure 88/1) of the empty gas cylinder.
- ➔ Unscrew the high-pressure hose with adapter piece (Figure 88/2) from the gas cylinder or remove the plug-on adapter, if required.
- ➔ Release the fastening strap (Figure 88/3).
- ➔ Replace the empty gas cylinder with a full gas cylinder.
- ➔ Secure the full gas cylinder with the fastening strap.
- ➔ Screw the high-pressure hose with adapter piece to the fully filled gas cylinder or remove the plug-on adapter, if required.
- ➔ Open the gas cylinder valve of the full gas cylinder.
- ➔ Firmly push in the hose rupture protection push-button for approx. 5 seconds (Figure 88/2).
- ➔ Always check the connection to the gas cylinder for leaks after replacing gas cylinders. Use a gas leakage detector spray or a soapy solution to do this.

11.6.3 Gas pressure regulator

The gas pressure regulator reduces the gas pressure to the nominal pressure of the connected gas devices. The gas pressure regulator consists of a low pressure regulator with an integrated safety device against overpressure and a wall bracket.

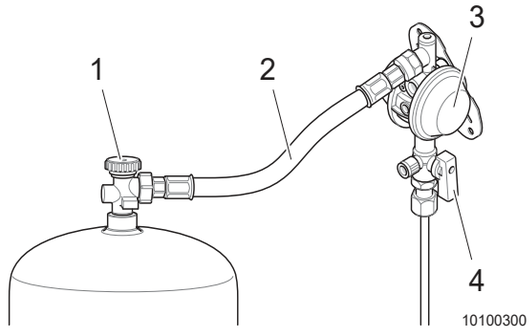


Figure 89 Gas pressure regulator

1 Gas cylinder valve
2 High-pressure hose
3 Gas pressure regulator
4 Stop valve

Putting the gas pressure regulator into service:

- ➔ Open the gas cylinder valve (Figure 89/1).
- ➔ Open the stop valve (Figure 89/4).

The gas appliances can now be placed into service.

Changing gas cylinders:

The high-pressure hose must be screwed on and off the gas cylinder by hand. Do not use any tools.

- ➔ Close the gas cylinder valve (Figure 89/1) of the empty gas cylinder.
- ➔ Unscrew the high-pressure hose with adapter piece (Figure 89/2) from the gas cylinder or remove the plug-on adapter, if required.
- ➔ Release the fastening strap (Figure 88/3).
- ➔ Replace the empty gas cylinder with a full gas cylinder.

➔ Secure the full gas cylinder with the fastening strap.
➔ Screw the high-pressure hose to the fully filled gas cylinder or put on the plug-on adapter, if required.
➔ Open the gas cylinder valve of the full gas cylinder.
➔ Always check the connection to the gas cylinder for leaks after replacing gas cylinders. Use a gas leakage detector spray or a soapy solution to do this.

11.6.4 Gas filter (optional)

The gas filter (Figure 87/3) removes aerosols (liquid droplets) from the gas flow. These aerosols are deposited in the gas pressure regulators, pipelines or valves and can damage the system.

Danger!

Risk of explosion

➔ The gas filter may only be opened when it is depressurized.

Note!

➔ Replace the filter pad of the gas filter every time the gas cylinder is changed.

Replacing the filter pad:

➔ Close the gas cylinder valve (Figure 87/6).
➔ Unscrew the high-pressure hose (Figure 87/5) from the gas cylinder.
The high pressure hose and the gas filter are now unpressurised.
➔ Open the gas filter and replace the filter pad.
➔ Close the gas filter.
➔ Screw the high-pressure hose to the gas cylinder.
➔ Carefully open the gas cylinder valve.

Replace the filter pad of the gas filter every time the gas cylinder is changed.

For further information, please refer to the manufacturer's separate operating instructions.

11.6.5 Truma MonoControl CS - Changing the high-pressure hose

Caution!

Risk of explosion caused by a leak after changing the high-pressure hose

➔ Check the connections of the high-pressure hose for leaks after changing the high-pressure hose.
➔ To do this, use a leak detector spray compliant with DIN EN 14291:2005-02.

Note!

➔ Also replace the rubber gasket each time you change the high-pressure hose.

If damage is visible on the high-pressure hose, it must be replaced.

Use the screwing tool provided for screwing the high-pressure hose on and off (Figure 91/1).

The screwing tool ensures the required tightening torque and prevents damage to the screw connection caused by wrong tools.

Changing the high-pressure hose with hose rupture protection:

- ➔ Close the gas cylinder valve (Figure 87/6).
- ➔ Unscrew the high-pressure hose (Figure 87/4) from the gas cylinder and from the MonoControl CS (Figure 87/1) inlet.
- ➔ Screw the country-specific high-pressure hose to the MonoControl CS and to the gas cylinder inlet.
- ➔ Open the gas cylinder valve.
- ➔ Press the push-button on the connecting piece with hose rupture protection (Figure 87/5) (Chapter 11.6.1).
- ➔ If the yellow reset button (Figure 87/2) is not pushed in, reset the crash sensor (Chapter 11.6.6).
- ➔ Check the hose connection at the gas cylinder valve for leaks after every intervention.

11.6.6 Resetting the crash sensor

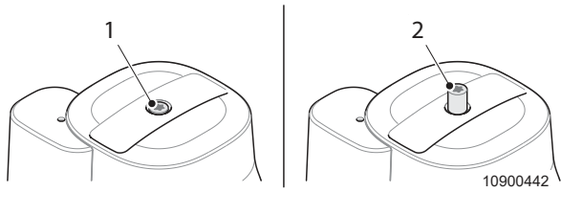


Figure 90 Crash sensor

1 Yellow reset button - Ready for operation
2 Yellow reset button - Not ready for operation

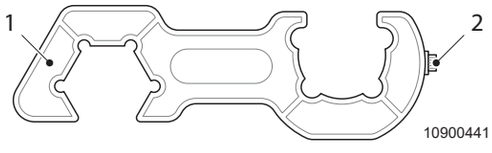


Figure 91 Screwing tool

1 Screwing tool
2 Torx head

Resetting the crash sensor:

- ➔ Firmly push in the yellow reset button (Figure 90/2), slightly turn in clockwise direction and hold it for approx. 10 seconds.
- ➔ Make sure that the reset button remains (Figure 90/1) in the “Ready for operation” position.
- ➔ If resetting is unsuccessful, use the Torx head (Figure 91/2) of the screwing tool (Figure 91/1) to support the rotation in a clockwise direction.

11.7 Quick-action stop valves

Note!

➔ If the gas appliance is not used, the respective quick-action stop valve must be closed.

The gas distribution to the individual gas appliances is performed via the gas quick-action stop valves.

11.7.1 Quick-action stop valves of the heater, refrigerator, cooker and oven

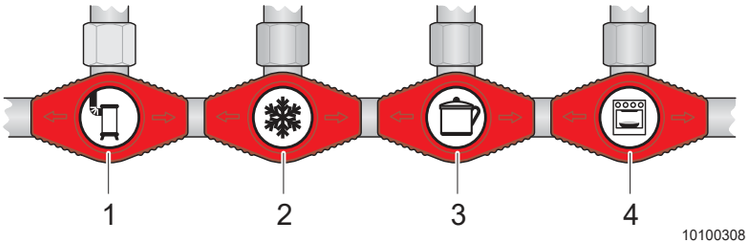


Figure 92 Quick-action stop valves of the heater, refrigerator, cooker and oven

1 Heating
2 Refrigerator
3 Cooker
4 Oven

Each gas appliance has its own quick-action stop valve.

These are marked with suitable symbols to prevent mistakes:

- Heater (Figure 92/1)
- Refrigerator (Figure 92/2)
- Cooker (Figure 92/3)
- Oven (Figure 92/4)

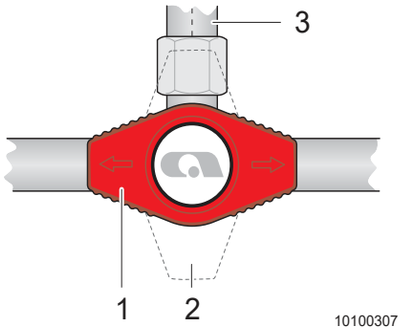


Figure 93 Quick-action stop valves - positions

1 Closed
2 Open
3 Gas pipe to the gas appliance

Using the gas appliances:

➔ Open the respective quick-action stop valve to put the desired gas appliance into service.

– Quick-action stop valve closed (Figure 93/1): The arrows on the quick-action stop valve are perpendicular to the gas pipe leading to the gas appliance (Figure 93/3).

– Quick-action stop valve open (Figure 93/2): The arrows on the quick-action stop valve are parallel with the gas pipe leading to the gas appliance.

11.8 External gas connection (optional)

Danger!

Risk of explosion

- ➔ Only use a suitable adapter to connect to the external gas connection.
- ➔ Only connect gas appliances which are designed for 30 mbar operating pressure to the external gas connection.
- ➔ Check for leaks on the external gas connection every time a gas appliance is connected. Gas escapes into the air when the gas connection leaks.
- ➔ Close the stopcock and main shut-off valve on the gas cylinder immediately when gas escapes and have the external gas connection checked by an approved specialist workshop.
- ➔ Fire and smoking are prohibited and sparks must be prevented when connecting a gas appliance to the external gas connection.
- ➔ Filling gas cylinders using the external gas connection is forbidden.
  Observe the information sticker.
- ➔ Always close the stopcock when no appliance is connected to the external gas connection.

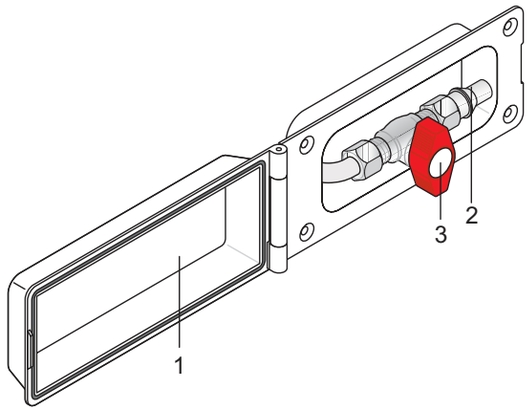


Figure 94 External gas connection

1 External gas connection cover
2 Connection for gas appliances
3 Stopcock

Using the external gas connection:

- ➔ Open the flap for the external gas connection (Figure 94/1).
- ➔ Attach a suitable adapter to the connection (Figure 94/2).
- ➔ Open the stopcock (Figure 94/3).

12 Water supply and waste water

12.1 Water supply

The water system in your vehicle is made up of a fresh water system and a waste water system.

The water supply corresponds at least with the state of the art of 03/2009 (Directive 2002/72/EC).

Warning!

Health hazard

Formation of bacteria and algae in the fresh water tank.

- ➔ Regularly change the water including the boiler contents (e.g. twice a week).
- ➔ After the end of every journey or after no later than after 4 weeks, the fresh water tank must be drained, cleaned thoroughly and left open (for venting).
- ➔ Thoroughly clean the hoses after the end of each journey.
- ➔ Use a sterilisation agent for the fresh water tank.
- ➔ Only user water with drinking quality to fill the fresh water tank.

Caution!

Damage to the water pump

The water pump can overheat when running without water and can be damaged.

- ➔ Never operate the water pump when the fresh water tank is empty!

Caution!

Damage to the environment

- ➔ Never drain tanks (fresh water and waste water) into the open countryside!
- ➔ Empty the tanks only at petrol stations, rest and service areas, disposal sites or camping sites which provide appropriate facilities to dispose of the water.

Caution!

Damage due to frost

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.
- ➔ When the vehicle is not used for an extended period of time or is not heated when there is a risk of frost, fully drain, clean and dry the water system (see 12.2.6 and 12.3.2). Leave all water taps, all drain cocks as well as all drain valves open.

By default, the vehicle is equipped with a fresh water tank. When a water tap is opened, the installed water pump is switched on provided that the water pump is activated on the control panel.

We recommend checking the water system's piping for leaks every 6 months and retightening the clamps as well as the connectors.

12.2 Fresh water system

12.2.1 Fresh water tank

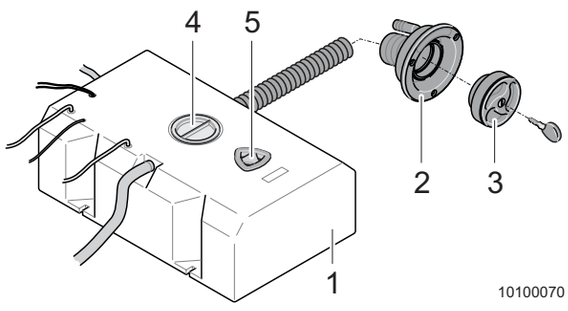


Figure 95 Filling the fresh water tank - external

1 Fresh water tank
2 Filler neck
3 Lockable cap
4 Service cover
5 Water regulation hand wheel (optional, location depends on the model and fittings)

Using the fresh water tank:

➔ Thoroughly clean the fresh water tank before each journey.

➔ If possible, fill the fresh water tank only just before staying overnight or at the destination of the journey.

➔ Avoid additional weight.

➔ Only fill the fresh water tank with drinking water.

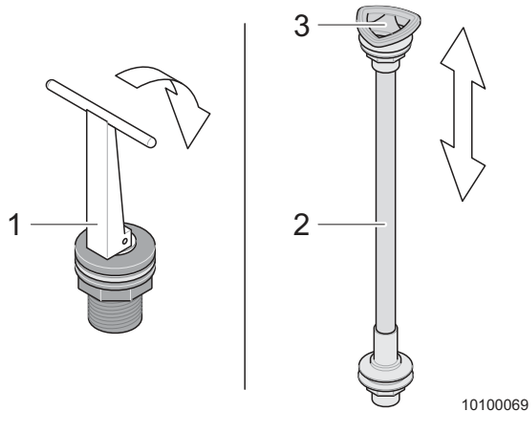


Figure 96 Draining the fresh water tank - Systems

1 Quick release fastener
2 Water regulation system
3 Hand wheel

Some models are equipped with a water regulator (optional) (Figure 96/2). There is a hand wheel (Figure 96/3 and Figure 95/5) at the top of the fresh water tank for adjusting the water level and for draining the water.

➔ Turning the hand wheel clockwise will close the system. The entire filling capacity of the tank is available.

➔ Turn the hand wheel anticlockwise until you feel a slight resistance to reduce the water level to about 20 l (excess water is drained).

12.2.2 Filling the fresh water tank

Filling the fresh water tank (external):

➔ Deactivate the water pump on the control panel (Chapter 8.8).

➔ Close the Truma FrostControl (Chapter 13.4).

➔ Close the drain valve on the fresh water tank. Depending on the installed system, proceed as follows to do this:

– Either open the service cover (Figure 95/4). Then, push the quick release fastener (Figure 96/1) into the drain valve and fold the handle.

– Or turn the hand wheel of the regulation system (Figure 96/3 and Figure 95/5) clockwise until you hit the stop.

➔ Close the service cover (Figure 95/4).

➔ Unlock and open the lockable cap (Figure 95/3) on the water filling funnel (Figure 95/2).

➔ Use a jerrycan, watering can or hose to fill drinking water into the fresh water tank.

➔ Replace the lockable cap, let it latch and lock it.

12.2.3 Taps

The water flow and water temperature are controlled by raising or swinging the lever of the tap.

The switch on the tap is disabled until the water pump is switched on on the control panel.

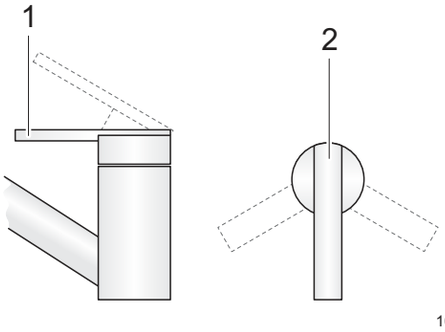


Figure 97 Tap

1 Lever (raising/lowering)
2 Lever (swivelling)

Operating the tap:

➔ Move the lever (Figure 97/1) upward to turn on the water pump.
The water starts running.

➔ Swing the lever (Figure 97/2) to set the required temperature.
Moving the lever towards “red”: the water gets warmer.
Moving the lever towards “blue”: the water gets colder (minimum ambient temperature of the water tank).

➔ Push the lever all the way down to stop the flow of water.

12.2.4 Outdoor shower (optional)

Danger!

Risk of a fatal electric shock

Pointing the outdoor shower's water jet at an electrical system (e.g. power sockets, transformers) may result in life-threatening electrical shocks.

➔ Always keep a minimum distance of 1.2 m from any electrical system when using the outdoor shower.

➔ Never point the outdoor shower's water jet at an electrical system.

The connection of the outdoor shower is located inside the rear garage.

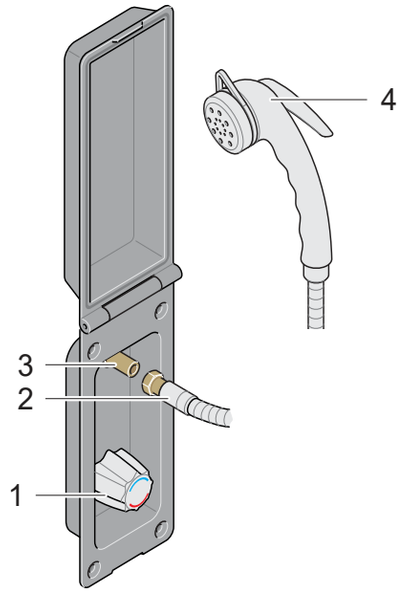


Figure 98 Outdoor shower

1 Temperature controller
2 Shower hose
3 Connection for the shower hose
4 Shower head with lever for permanent operation

Using the outdoor shower:

➔ Insert the shower hose (Figure 98/2) into the connection (Figure 98/3) provided for the shower hose.

➔ Set the desired water temperature on the temperature control knob (Figure 98/1).

➔ Press the lever on the shower head (Figure 98/4).

12.2.5 Filling the fresh water system

Filling the fresh water system:

➔ Fill the fresh water tank (Chapter 12.2.2).

➔ Activate the water pump on the control panel (Chapter 8.8).

Filling the hot water pipes with water:

➔ Open all taps and shower heads in the "hot" position.

➔ Open all taps and shower heads until there are no more bubbles in the water flowing from the fittings.

Filling the cold water pipes with water:

➔ Open all taps and shower heads in the "cold" position.

➔ Open all taps and shower heads until there are no more bubbles in the water flowing from the fittings.

➔ Close all taps.

12.2.6 Draining the fresh water system

Caution!

Damage due to frost

If the vehicle is not heated when there is a risk of frost or when it is not used for a longer period of time, the formation of ice can cause damage to the components of the water system and waste water system.

➔ Fully drain the entire water system, clean it and allow it to dry. Leave the water taps and drain cocks as well as all drain valves open.

Note!

➔ We recommend that you change the water in the fresh water tank regularly (e.g. weekly) even if the tank is completely filled, as bacteria will form inside the fresh water within only a few days and render the water undrinkable.

Draining the fresh water system:

➔ Deactivate the water pump on the control panel (Chapter 8.8).

➔ Open all taps and shower heads to the centre position.

➔ Open the drain valve on the tank bottom. Depending on the installed system, proceed as follows to do this:

– Either open the service cover (Figure 95/4), fold down the handle on the plug in the tank (Figure 96/1) and pull out the plug.

– Or turn the hand wheel of the regulation system (Figure 96/3 or Figure 95/5) anticlockwise until you hit the stop.

➔ Open the Truma Frost Control of the hot water boiler (Chapter 13.4).

➔ Completely drain the water system.

➔ Rinse through and clean the fresh water tank and allow it to dry.

➔ For vehicles with a pressure pump: Briefly switch off the water pump to remove the remaining water.

➔ Leave all water taps open in the centre position until the vehicle is put into service again. Only switch on the water pump after refilling the tank with water.

12.2.7 Cleaning the fresh water tank

Cleaning the fresh water tank:

➔ Drain the fresh water system (Chapter 12.2.6).

➔ Clean the inside of the tank.

➔ Close the plug in the tank bottom, and the service cover when necessary.

12.3 Waste water system

Caution!

Damage due to frost

If the vehicle is not heated when there is a risk of frost or when it is not used for a longer period of time, the formation of ice can cause damage to the components of the water system and waste water system.

➔ Fully drain the entire water system, clean it and allow it to dry. Leave the water taps and drain cocks as well as all drain valves open.

Note!

➔ Before moving off close the drain of the shower tray to prevent waste water from running back into the shower tray through the drain.

12.3.1 Waste water tank

The waste water that is collected from the kitchen sink, the shower and the washbasin in the bathroom is collected centrally in the waste water tank.

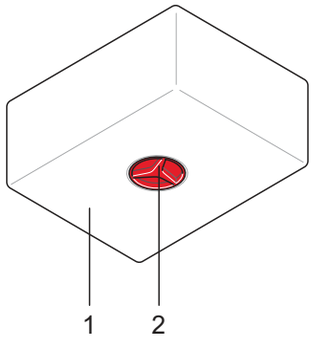


Figure 99 Waste water tank, fixed

1 Waste water tank
2 Screw opening

The waste water tank is also located on the underside of the vehicle. For thorough cleaning, the waste water tank of most models has a screw opening that is accessible from below. Stubborn soiling can thus be eliminated.

12.3.2 Draining the waste water system

Note!

➔ Only empty the waste water tank at specially designated disposal facilities. Observe town and district regulations and ask about disposal facilities.

12.3.2.1 Drain valve of the waste water tank - version 1

The drain pipe and the operating lever for the drain valve are located on the underside of the vehicle.

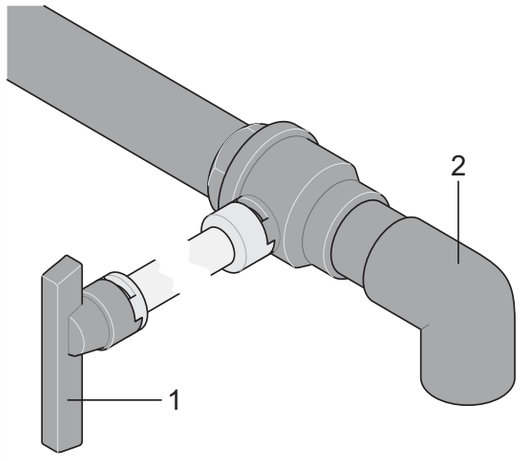


Figure 100 Draining the waste water tank

1 Drain valve operating lever
2 Drain pipe

Draining the waste water tank:

➔ Position the vehicle over the drain position so that the waste water from the waste water pipe (Figure 100/2) can flow into a gully.

➔ Turn the lever (Figure 100/1) to open the drain valve.

➔ When the tank is empty, close the drain valve again.

➔ Draining the cassette (see Chapter 16.1.1 or 16.2.1).

12.3.3 Drain valve of the waste water tank - version 2

The drain pipe is located on the underside of the vehicle. The operating lever and the drain valve are located inside the rear garage.

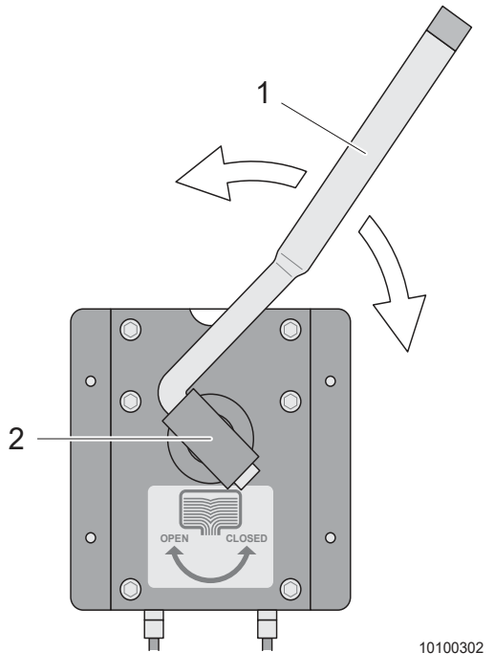


Figure 101 Draining the waste water tank - version 2

1 Drain valve operating lever
2 Fitting for inserting the operating lever

Draining the waste water tank:

➔ Position the vehicle over the drainage point so that the waste water from the waste water pipe can flow into a gully.
➔ Insert the operating lever (Figure 101/1) into the fitting (Figure 101/2).
➔ Turn the lever to the OPEN position.
➔ When the waste water tank is empty, turn the operating lever to the CLOSED position.
➔ Remove the operating lever from the fitting and attach it to the bracket.
➔ Draining the cassette (see Chapter 16.1.1 or 16.2.1).

12.3.4 Electrically operated drain valve for the waste water tank (optional)

The drain pipe is located on the underside of the vehicle. The switch for the electrically operated drain valve of the waste water tank is located inside the rear garage.

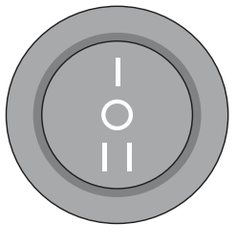


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Figure 102 Switch Drain valve

I	Closing the drain valve
O	Neutral position - no strain on the drain valve
II	Opening the drain valve

Draining the waste water tank:

➔ Position the vehicle over the drainage point so that the waste water from the waste water pipe can flow into a gully.

➔ Turn the switch (Figure 102) of the drain valve to position II.
After a few seconds, the drain valve will open.

➔ Once the tank is empty, turn the drain valve switch to position I.
The drain valve will close after a few seconds.

➔ Turn the drain valve switch to position O.

Note!

The drain valve stops automatically upon reaching the open or closed end position.

Keeping the switch in position I or II longer than the opening or closing process will not damage the drain valve.

12.3.5 Water filter (optional)

Caution!

Damage from leaking water

➔ Use the water system only with installed water filter.

➔ Check prior to first use if the water filter is installed correctly.

Caution!

Damage due to frost

Some liquid will remain in the filter housing after draining the water supply.

➔ If there is a risk of frost, remove the water filter housing cover and drain remaining liquid.

Some vehicle models are fitted with a pressure water pump (Figure 103/1). The pressure water pump can be fitted in conjunction with a water filter (Figure 103/2).

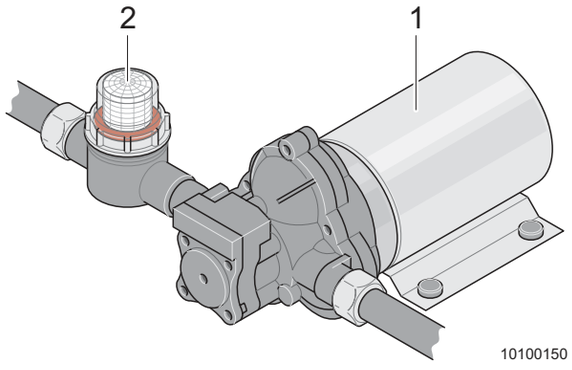


Figure 103 Pressure water pump with water filter

1 Pressure water pump
2 Water filter under housing cover

Remove water filter for cleaning or draining.

Removing the water filter:

➔ Drain the water system (Chapter 12.2.6)

➔ Place an absorbent cloth under the water filter (Figure 103/2).

➔ Unscrew the housing cover of the water filter anti-clockwise.

➔ Remove the water filter.

Inserting the water filter:

➔ Insert the water filter (Figure 103/2) into the filter housing.

➔ Carefully screw the housing cover of the water filter clockwise to close.

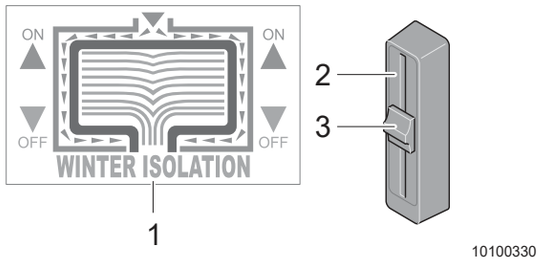
➔ Check for leaks.

12.3.6 Waste water tank heater (optional)

Some models are fitted with an optional waste water tank heater. Depending on the model, an electrical heater module can be used or hot air circulated from the living area heater.

12.3.6.1 Circulating air waste water tank heater

On some models, the waste water tank is insulated and heated with hot air.



1 Label
2 Controller housing
3 Slide control

Figure 104 Circulating air waste water tank heater

Operating the waste water tank heater:

➔ Switching on: Move the slide control (Figure 104/2) upwards (red arrow).

➔ Switching off: Move the slide control downwards (blue arrow).

The installation position of the circulating air waste water tank heater depends on the model.

12.3.6.2 Electrical waste water tank heater

On some models, the waste water tank has an electrical heater.

Caution!

Damage to the tank heater

Operating the tank when it is empty can damage the heater.

➔ Deactivate the tank heater on the control panel when the tank has been drained.

➔ Activate the 12-V supply on the control panel (Chapter 8.8).

➔ Activate the tank heater on the control panel.
If the tank heater is activated, it is automatically switched on when the temperature falls below +5 °C.

13 Heating, hot water & air conditioning

13.1 Notes on the heaters

13.1.1 All heater types

Danger!

Risk of poisoning from exhaust gases

The heater's exhaust gases can cause poising.

- ➔ Before starting the heater, verify that the cowl is not obstructed. Remove ice, snow, leaves or any other objects clogging the cowl.
- ➔ Check the exhaust gas pipe for damage before switching the heating on. Do not use the heater when the exhaust gas pipe is damaged.
- ➔ Do not close off or cover the exhaust cowl.
- ➔ When camping during winter, use a cowl extension. The exhaust cowl must not be covered with snow.
- ➔ When the vehicle is parked in enclosed spaces:
  - – Shut off the fuel supply of the heater.
  - – Disable the timer.
  - – Switch off the heater on the control unit.
  - – Make sure that the heater cannot be reactivated remotely (e.g. using the Truma app).
- ➔ Do not use the space behind the heating for storage.

Danger!

Risk of poisoning when the exhaust cowl is on the right side of the vehicle

When the awning is mounted and the heater runs on liquefied gas or petrol, exhaust gases of the heater can accumulate under the awning. There is a risk of poisoning due to a lack of oxygen and the odourless and toxic carbon monoxide (CO) which may be produced in the combustion process.

- ➔ Ensure adequate ventilation!

Danger!

Risk of fire due to objects sensitive to heat

Objects sensitive to heat (e.g. spray cans, candles), flammable materials, liquids, gaseous substances or vapours can be ignited by the heat of the heater.

- ➔ Do not store or use any objects sensitive to heat or flammable materials, liquids, gaseous substances or vapours near the heater, in the installation space of the heater, or in the heater itself.
- ➔ Do not store or use objects sensitive to heat or flammable materials, liquids, gaseous substances or vapours near the hot air distribution system.

Danger!

Risk of fire due to flammable liquids

Contact of flammable liquids with hot parts of the heater (heating elements, heat exchanger) can cause a fire.

- ➔ Do not place flammable liquids (bottles, glasses) on or above the heater.
- ➔ Do not store flammable liquids in or above the installation space of the heater.

Danger!

Risk of fire due to overheating

If the hot air outlets or the recirculating air intake of the heater are blocked, the heater may overheat and cause a fire.

- ➔ Keep the hot air outlets of the heater free.
- ➔ Keep the recirculating air intake of the heater free.
- ➔ Do not hang textiles or similar to dry in front of or on the heater.

Danger!

Electric shock due to liquids

If liquids penetrate the control system of the heater, short circuits may occur.

- ➔ Do not place liquids (bottles, glasses) on or above the heater.

Danger!

Electric shock due to damaged power cables

Damaged power cables can cause electric shock.

- ➔ Switch off the 230-volt power supply, e.g., by switching off the fuse, the residual-current circuit breaker or by disconnecting the vehicle from the 230-volt power supply.
- ➔ Have the damaged power cable replaced by competent and trained personnel (specialised personnel).

Danger!

Risk of burns by hot surfaces

The surfaces of the heater, the hot air outlet and the chimney become very hot, which can cause burns.

- ➔ Do not touch the heater while it is running.
- ➔ Do not touch the area around the cowl.
- ➔ Only operate the heater with the panelling in place.
- ➔ Do not touch the panelling of the heater during heating.
- ➔ Do not allow small children to remain in the vehicle without supervision.
- ➔ Do not lean any objects against the exhaust air duct in the wall or against the vehicle.

Caution!

Damage to heating

Improper handling can damage the heating system.

➔ Only specialised personnel may install or repair heaters or carry out functional tests.

➔ Do not cover hot air outlets that cannot be closed.

If the recirculating air intake is blocked, the heater may overheat.

➔ Do not block the openings of the recirculating air intake and the installation space of the heater.

➔ Do not store any objects in the installation space of the heater.

Products containing chlorine can damage the device.

➔ Do not use products containing chlorine on or in the unit.

Note!

➔ The person using the heating must have the heat exchanger of the Truma heating replaced at the latest after 30 years. Only the heating manufacturer or an authorized workshop can exchange the heat exchanger.

➔ Heating spare parts must always be approved as spare parts by the manufacturer.

Note!

➔ The heater can be run with liquefied gas while travelling if the gas supply is fitted with a Truma Mono-Control CS. Before starting the journey, obtain information concerning any special provisions applicable in the country to be visited.

➔ Please pay attention to the safety notices on the gas system (see Chapters 2.5 and 11) and on the power supply (see Chapter 10).

13.1.2 Gas and diesel operated heaters

Observe the instructions if your vehicle is equipped with one of the following gas-operated heaters:

- Truma Combi
- Alde Compact

Note!

➔ Please pay attention to the safety notices on the gas system (see Chapters 2.5 and 11) and on the power supply (see Chapter 10).

Danger!

Risk of poisoning from exhaust gases

Ventilation devices or exhaust openings become blocked or damaged can lead to a lethal concentration of gas in the vehicle.

➔ Do not block the ventilation devices or exhaust openings.

➔ Clean the ventilation devices and exhaust openings regularly.

➔ Check the integrity and firm connection of the chimney regularly.

If there is a roof window or a roof hood near the chimney, exhaust gases can enter the interior of the vehicle through it and may lead to a lethal concentration of gas in the vehicle.

➔ Only operate the heater with the roof window or roof hood closed.

When parking in enclosed spaces (e.g. garages, workshops, awnings), exhaust gases can enter the interior of the vehicle when the heater is running. This can lead to a fatal concentration of gas in the vehicle.

➔ Switch off the heater when parking in enclosed spaces.

A misfire can cause a deflagration. This can damage the heater and cause it to leak, and exhaust gases can enter the interior of the vehicle. This can lead to a fatal concentration of gas in the vehicle.

➔ Do not restart the heater after a deflagration.

➔ Have the heating and exhaust gas routing checked by specialised personnel.

An explosive gas-air mixture can result from unburnt gas escaping.

➔ Do not allow gas to escape unburned.

➔ If a gas-operated heater is not used for an extended period of time, close the quick shut-off valve of the heater and the valve on the gas cylinder.

Danger!

Risk of explosion or fire

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

➔ Switch off the heater on the control unit.

➔ Make sure that the heater cannot be reactivated remotely (e.g. using the Truma app).

Use of a heater damaged by liquid ingress (e.g. by drinks, floods, leaks) or by an accident may result in a fire or explosion.

➔ Do not switch a damaged heater on.

➔ Have a damaged heater repaired or replaced by specialised personnel.

Heaters that draw in air for combustion underneath the vehicle can draw in flammable substances (e.g. hay, leaves, textiles), which can then ignite.

➔ Keep the combustion air intake area free of flammable substances.

Danger!

Risk of accident and injury due to defective chimney cover

A chimney cap that is not tight, not engaged or defective can come loose while driving, causing accidents and serious injuries.

➔ Before setting off, make sure that the chimney cap is firmly seated and engaged.

➔ Do not use an defective chimney cap.

Caution!

Damage to heating

A chimney or combustion air inlet blocked by water, slush, ice, dirt or insects can disrupt the function of the heater.

➔ Keep the chimney and the combustion air inlet free from blockages.

➔ Before starting the heater, clear the chimney and the combustion air intake under the vehicle of snow.

13.1.3 Devices for hot water generation

Observe the instructions if your vehicle is equipped with one of the following devices for hot water generation:

- Truma Combi
- Alde Compact

Note!

➔ Please pay attention to the safety notices on the gas system (see Chapters 2.5 and 11) and on the power supply (see Chapter 10).

Danger!

Health impairment due to heated drinking water

Heated drinking water can affect health.

➔ Do not drink heated water or use it for cooking.

Caution!

Damage to the heater due to excessive water pressure

A water pressure of more than 2.8 bar can damage the water tank of the heater.

➔ If the vehicle is connected to a city water connection or a Truma Ultraflow, make sure that a pressure reducer is fitted that limits the water pressure to 2.8 bar.

Caution!

Damage to the hot water boiler due to freezing water

The hot water boiler can be damaged by freezing water.

➔ If you intend not to use the hot water boiler for a longer period of time, especially before the vehicle is laid up for the winter, drain the hot water boiler completely via the drain valve.

➔ 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.

13.2 Truma Combi, Truma Combi E and Truma Combi D

Depending on the model, the Truma Combi heater in your vehicle is either run on liquefied gas or on diesel fuel. Aside from using a gas-powered heater, there is also the option to operate the heating electrically via a 230-V supply. The heaters can heat both the living area and the drinking water.

All Truma Combi heaters are hot-air heaters with integrated hot water boiler. They can also be operated while driving.

- The Truma Combi is powered by liquefied gas.
- The Truma Combi E provides three different energy supply options:
  - Only liquefied gas for independent operation
  - Electricity only (230 V) for stationary operation at a camping site
  - Liquefied gas and electrical supply at the same time (only possible in winter mode)
- The Truma Combi D is powered by diesel fuel.

Note!

Also observe the warnings for the heaters in section 13.1.

13.2.1 Using the heater

Note!

The mode of operation of the Truma Combi and the Truma Combi E or Truma Combi D is almost identical.

When new heaters are used for the first time, there is a slight build-up of smoke. This is normal.

➔ In this case, allow the heater to run at maximum capacity, switch on the circulation fan and open the air vents. Open the windows and the doors of the vehicle to ensure proper ventilation of the motorhome during this process.

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

For further information, please refer to the manufacturer's separate operating instructions.

Note!

Heating is always possible in all operating modes (gas, diesel, electric and mixed operation) with a filled or an empty hot water boiler.

Check the following each time before using the heater:

For gas operation (Truma Combi):

➔ Is the exhaust cowl unobstructed?
Otherwise remove the cover from the exhaust cowl.

➔ Is the valve on the gas cylinder open?

➔ Is the "Heater" quick-action stop valve on the distributor block open?

For electrical operation (Truma Combi E):

➔ Is the circuit protection for the 230 V power supply at the camping site adequate? (900 W ~ 3.9 A / 1800 W ~ 7.8 A)?

➔ Has the connecting cable been fully unwound from the cable reel?

➔ Is the 230-V circuit breaker in the vehicle switched on?

For diesel operation (Truma Combi D):

➔ Is the exhaust cowl unobstructed?
Otherwise remove the cover from the exhaust cowl.

➔ Is the tank filled with at least 10 litres of diesel fuel?

13.2.2 Truma CP plus control

You can use the digital control panel Truma CP plus to control your iNet-enabled heater and air conditioning system.

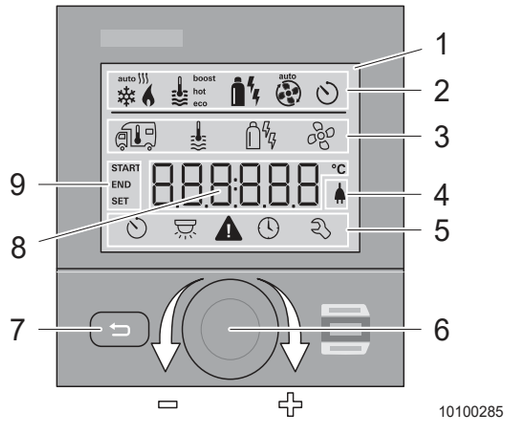


Figure 105 Truma CP plus control

1 Display
2 Status bar
3 Menu bar (top)
4 Display mains voltage 230 V (power grid)
5 Menu bar (bottom)
6 Rotary push button
7 Back button
8 Settings/values
9 Display time switch

Switching off the heater on the control unit:

➔ Press the rotary push button for more than 4 seconds.

Selecting menus and setting values:

➔ Turn the rotary push button (Figure 105/6) to the required menu to the right or left.

➔ To activate the selected menu, press the rotary push button.

– To activate a menu item, press the rotary push button.

– To set values, turn the rotary push button.

– To apply the selected value, press the rotary push button.

➔ Use the Back button (Figure 105/7) to return to the previous menu or the previous display.

For further information, please refer to the manufacturer's separate operating instructions.

13.2.3 Operating modes

The operating modes can be set in the menus.

13.2.3.1 Hot water mode

Hot water can be produced in gas, diesel or electric operation (230 V).

Note!

Mixed operation is not possible in hot water mode. With this setting, both the Truma Combi E and the Truma Combi D E automatically select electric mode.

If the vehicle is disconnected from the 230 V power supply or the 230 V power supply fails, the Truma Combi E automatically switches to gas operation, while the Truma Combi D E does not automatically switch to diesel operation.

Producing hot water:

➔ Fill the hot water boiler with water (Chapter 13.2.7).

➔ Select the required type of energy.

- In gas mode, the water is heated at the smallest burner stage.
- In electric mode, a power of 900 W (3.9 A) or 1800 W (7.8 A) can be set manually, according to the fuse protection at the campsite.
- In diesel mode, the water is heated at the smallest burner stage.

➔ Set the required water temperature of 40 °C or 60 °C.
After attaining the water temperature selected, the heating switches off.

13.2.3.2 Heating and hot water mode

In heating and hot water mode the heating automatically selects the required power level according to the temperature difference between the temperature set on the control element and the current room temperature.

If the water container is filled, the water is automatically heated. The water temperature depends on the operating mode selected and the heating power output.

Note!

If more power is required (e.g. when heating up the vehicle or when outside temperatures are low), set the unit to gas or diesel or mixed operation. This means that there is always sufficient heat output available.

In mixed operation, 230 V electric operation is preferred if only a small amount of power is required (e.g. for maintaining the room temperature). The gas or diesel burner only switches on when more power is required. If the amount of power required falls, then the gas or diesel burner switches off again.

Heating with controlled water temperature:

➔ Fill the hot water boiler with water (Chapter 13.2.7).

➔ Select the required type of energy.

– The required power level is automatically selected in gas mode.

– In electric mode, a power of 900 W (3.9 A) or 1800 W (7.8 A) can be set manually, according to the fuse protection at the campsite.

– The required power level is automatically selected in diesel mode.

➔ Set the required room and water temperature.
After attaining the room or water temperature selected, the heating switches off.

Heating without controlled water temperature

➔ Fill the hot water boiler with water (Chapter 13.2.7).

➔ Select the required type of energy.

– The required power level is automatically selected in gas mode.

– In electric mode, a power of 900 W (3.9 A) or 1800 W (7.8 A) can be set manually, according to the fuse protection at the campsite.

– The required power level is automatically selected in diesel mode.

➔ Set the desired room temperature.
After attaining the room temperature selected, the heating switches off.

Heating with drained water system:

➔ Select the required type of energy.

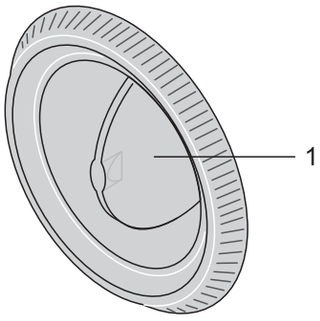
– The required power level is automatically selected in gas mode.

– In electric mode, a power of 900 W (3.9 A) or 1800 W (7.8 A) can be set manually, according to the fuse protection at the campsite.

– The required power level is automatically selected in diesel mode.

➔ Set the desired room temperature.
After attaining the room temperature selected, the heating switches off.

13.2.4 How to heat the vehicle correctly



1 Air outlet nozzle

Figure 106 Air outlet nozzle

Several air outlet nozzles (Figure 106/1) are built into the vehicle. Pipes and flexible hoses conduct the warm air to the air outlet nozzles.

Distributing the warm air:

➔ Close the air outlet nozzles on the instrument panel of the basic vehicle to prevent draughts.

➔ Set the air distribution of the basic vehicle to air circulation.

➔ Adjust the air outlet nozzles (Figure 106/1) so that the warm air escapes at the desired positions only.

Adjusting the air outlet nozzles:

➔ Fully open the air outlet nozzle (Figure 106/1) to conduct the full warm air flow to the desired position.
The more you close the air outlet nozzle (Figure 106/1), the lower the amount of warm air that flows.
With every air outlet nozzle that is opened in addition, the amount of warm air that flows from the individual nozzles reduces.

➔ To ensure a uniform distribution of the heat inside the vehicle, open the air outlet nozzles in cold sections of the vehicle a bit further than those in warmer sections of the vehicle.

13.2.5 Switching the heating off

➔ Press the rotary push button (Figure 105/6) for more than 4 seconds.
The switch-off process may be delayed by a few minutes due to the heating over-running internally.

➔ Fit the cowl cover.

➔ Close the "heater" quick-action stop valve when the heater is not used for an extended period of time (see Chapter 11.7).

➔ Close the gas cylinder valve if no more gas consumers are being used (see Chapter 11.5).

13.2.6 Malfunctions

Note!

If the device shuts off because of a fault during mixed operation when using Truma Combi E (e.g. because of an empty gas cylinder), the heater continues to run in electrical operation.

The control unit Truma CP plus indicates faults and warnings 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.

Note!

If the 230-V power supply is interrupted for a brief period during operation (approx. 1 second), the heater will resume normal operation by itself.

13.2.7 Filling the hot water boiler

Caution!

Damage to heating

➔ A pressure reduction valve must be used when connecting to a central public water supply. This prevents pressures above 2.8 bar in the hot water boiler.

Note!

➔ If the temperature at the Truma FrostControl drops below approx. 7 °C, you first have to switch on the heater to heat up the installation space and the FrostControl device. After a few minutes and when the temperature is above 7 °C, the Truma FrostControl can be closed.

➔ If just the cold water system is being operated without using the hot water boiler, the hot water boiler will still fill with water. To avoid damage caused by frost, you must activate the Truma FrostControl to drain the water - even if the hot water boiler has not been used.

➔ When filling the fresh water system, the hot water boiler of the Truma Combi is also filled (see Chapter 12.2.5).

13.2.8 Emptying the hot water boiler

➔ The hot water boiler of the Truma Combi is drained via Truma FrostControl (see 13.4).

13.3 Alde Compact 3030 (optional)

The Alde Compact is a hot water heater with integrated hot water boiler. Heating operation is possible with gas, electricity (230 V) as well as with gas and electricity simultaneously. You can set the energy source for heat generation on the control element.

When the water system is full, the Alde Compact heats the vehicle and produces hot water. The Alde Compact can also be operated with an empty water system.

Note!

Also observe the warnings for the heaters in section 13.1.

13.3.1 Using the heater

The Alde Compact is adjusted using the control panel. The control panel has a touch-sensitive display.

13.3.1.1 Control panel - main menu

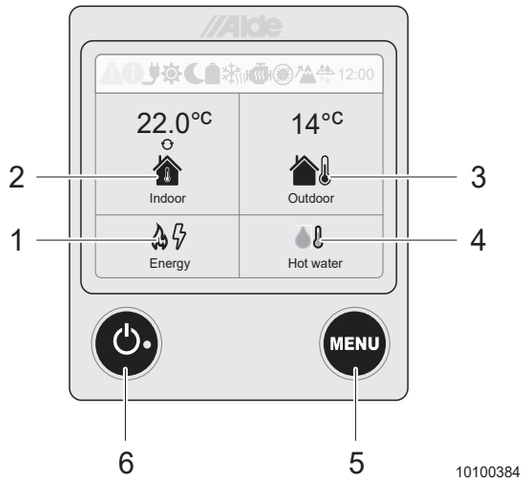


Figure 107 Control panel - main menu

1 Energy
Shows which energy source is being used. If gas is being used, the flame is red.
If electricity is being used, the flash is yellow.

2 Inside temperature
Shows the current inside temperature.

3 Outside temperature
Shows the current outside temperature if an external sensor is installed.

4 Hot water
Shows whether hot water generation is switched on.

5 MENU button
Button to activate the settings menu or to return to the status screen.

6 On/Off button
The green LED lights up when the heating and the control panel are switched on.

13.3.1.2 Switching the heating on, off and making adjustments

Danger!

Risk of poisoning from exhaust gases

If there is a roof window or a roof hood near the chimney, exhaust gases can enter the interior of the vehicle through these. This can lead to a fatal concentration of gas in the vehicle.

➔ Only operate the heater with the roof window or roof hood closed.

Danger!

Health impairment due to heated drinking water

Heated drinking water can affect health.

➔ Do not use the hot water for drinking or cooking.

Note!

When the heater is switched on for the first time, the configuration menu appears in the control panel display. Carefully read the manufacturer's operating instructions to configure the heating!

Note!

If the heater has not been in operation for a long time or the gas cylinder is new, it may take longer to ignite the heater than normal. Try to restart the heating.

Check the following each time before using the heater:

For gas operation:

➔ Is the exhaust cowl unobstructed?
Otherwise remove the cover from the exhaust cowl.

➔ Is the valve on the gas cylinder open?

➔ Is the "Heater" quick-action stop valve on the distributor block open?

➔ Check the heater liquid level (see Chapter 20.5.2).

with electric operation:

➔ Is the circuit protection for the 230 V power supply at the camping site adequate?
(1 kW ~ 6 A/2 kW ~ 10 A/3 kW ~ 16 A)?

➔ Has the connecting cable been fully unwound from the cable reel?

➔ Is the 230-V circuit breaker in the vehicle switched on?

➔ Check the heater liquid level (see Chapter 20.5.2).

Switching the heating on:

➔ Press the On/Off button (Figure 107/6).
The green diode on the On/Off button lights up, the main menu appears and the heater starts with the last selected settings.

Switching the heating off:

➔ Press the On/Off button (Figure 107/6).
The green diode on the On/Off button and the control panel go out.

Setting the temperature:

➔ Press on the inside temperature symbol (Figure 107/2).
The menu for setting the temperature appears.

➔ Set the desired temperature by tapping the plus or minus symbol.

➔ Pressing the arrow symbol or the MENU button (Figure 107/5) will make the display go back to the main menu.

Setting hot water operation:

➔ Press on the hot water symbol (Figure 107/4).
The menu for setting hot water operation appears.

➔ Set the desired hot water mode (no hot water, normal mode, boost) by tapping the corresponding symbol.

➔ Pressing the arrow symbol or the MENU button (Figure 107/5) will make the display go back to the main menu.

Setting the energy sources:

➔ Press on the energy symbol (Figure 107/1).
The menu for setting the energy sources appears.

➔ Set the desired energy source (gas, electricity or both at the same time).

– Set the maximum available electrical power for the heating with electricity setting.

– In the heating with gas setting, activate the altitude mode at altitudes above 1000 m.

➔ Pressing the arrow symbol or the MENU button (Figure 107/5) will make the display go back to the main menu.

Switching the heating on after changing the gas cylinder:

If a gas status error message is displayed on the control panel after changing the gas cylinder, restart the heater.

➔ Switch off all appliances on the control panel and then switch them on again (see Chapter 8.8).

➔ Switch on the heating on the control panel and check if everything works properly.

➔ If the gas status error message is still displayed, repeat the process.

13.3.1.3 Control panel - status display

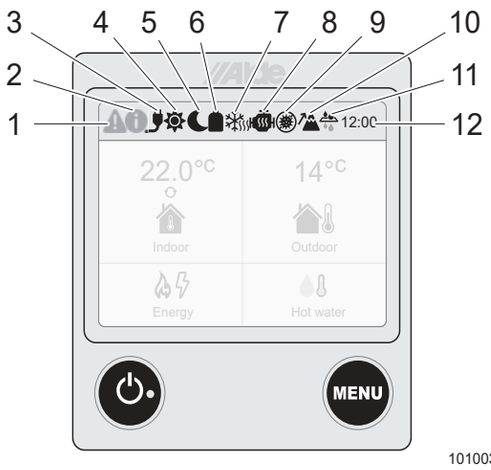


Figure 108 Top line of status display

1 Operating messages
Is displayed if a temporary operating fault occurs.

2 Information
Flashes if there is an information message.

3 230 V
Is displayed if the heating is connected to the 230 V power supply.

4 Day mode
Is displayed of the function is switched on and turns green if it is active.

5 Night mode
Is displayed of the function is switched on and turns green if it is active.

6 Gas cylinder full/empty (optional accessories required)
Is displayed if a Truma DuoControl is connected.
Black symbol: First gas cylinder is full.
Black symbol: First gas cylinder is empty. The Truma DuoControl has switched to the second cylinder.

7 EisEx (optional accessories required)
Is displayed of the function is switched on and turns green if it is active.

8 Motor heating (optional accessories required)
Is displayed of the function is switched on and turns green if it is active.

9 Remove bacteria
Is displayed when the automatic heater programme to eliminate bacteria is running.

10 Altitude mode
Flashes when altitude mode is active.

11 Alde AquaClear UV-C (optional accessories required)
Appears when the water pump is running and the water filter is working.

12 Time

Opening status display submenus

The symbols in the status display indicate which functions are activated and whether information on the heating is available.

➔ Press on the respective symbol to open its submenu.

Opening the "Settings" menu:

Additional setting for the heating can be made in the "Settings" menu.

➔ Press the MENU button (Figure 107/5).

For further information, please refer to the manufacturer's separate operating instructions.

13.3.2 How to heat the vehicle correctly

To get the most out of the Alde Compact, it is important that the air can circulate freely through the air gaps under the bed drawers, behind the backrests and the wall units. Make sure that e.g. carpets do not cover the air supply to the convectors. Make sure that curtains, cushions or blankets do not block the air circulation behind the seat backs and the wall units.

13.3.3 Emptying the Alde heating

The hot water boiler of the Alde Compact drained via the Truma FrostControl (see13.4).

13.4 Truma FrostControl

The Truma FrostControl (Figure 109/1) is located near the heating system.

Truma FrostControl is an overpressure relief valve and drain valve with frost protection function which is operated without using electrical power. When there is a risk of frost, it automatically drains the contents of the hot water boiler through a drainage pipe (Figure 109/4). In case of excessive pressure inside the heating system, the device automatically equalises the pressure.

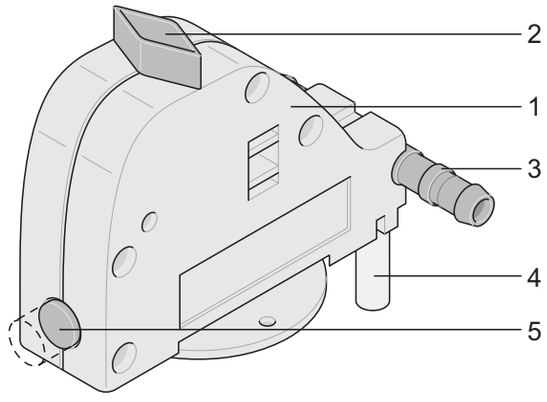


Figure 109 Truma FrostControl

1 Truma FrostControl
2 Rotary switch
3 Water connection
4 Drainage pipe
5 Push-button

Closing the Truma FrostControl:

➔ Check if the rotary switch (Figure 109/2) is set to "Operation" (parallel to the water connection (Figure 109/3) and is engaged.
It can only be closed by hand (pressed shut) with the push button (Figure 109/5) and the hot water boiler can only be filled if the temperature on the Truma FrostControl is above approx. 7 °C.

➔ Switch the heating on and set the rotary switch of the Truma FrostControl (Figure 109/1) to "Operation". The rotary switch must engage.

➔ Press the push button until it engages ("closed" position).

Automatic opening of the Truma FrostControl:

➔ When temperatures drop to below 3 °C at the Truma FrostControl, it will open automatically
The push-button (Figure 109/5) springs out and the water stored in the vehicle drains out through the drainage pipe (Figure 109/4).

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 drainage pipe 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 by hand:

➔ Turn the rotary switch (Figure 109/2) by 180° until it engages.
The push-button (Figure 109/5) springs out and the water stored in the vehicle drains out through the drainage pipe (Figure 109/4).

13.5 Heat exchanger (optional)

Depending on the vehicle equipment, the Alde Compact can be connected to the engine cooling circuit of the base vehicle using a heat exchanger.

Heating the living area during the journey:

➔ In the “Engine heating” submenu, set the heat exchanger. (Chapter 13.3.1.3).

13.6 Floor heating (optional)

As an option, your vehicle can be fitted with additional floor heating as well as the Truma or Alde heating.

There are two types of floor heating which provide additional heat in your vehicle:

- The hot water floor heating is operated with the Alde Compact. Here, hot water is fed through pipes laid in the floor of the vehicle which heat the floor. The hot water floor heating can be used when the vehicle is either connected to the 230 V power supply or independently with gas and 12 V for the control panel.
- The electric floor heating can be installed with a Truma Combi installed in the vehicle. Here, the floor is heated by special film laid in the floor. It is operated via a low voltage transformer. The electric floor heating can only be used if the vehicle is connected to a 230 V power supply.

13.6.1 Electric floor heating

Danger!

Risk of electric shock or short-circuit

➔ When the vehicle is equipped with an electric floor heating, do not drill any holes and do not screw in any screws into the floor.

Danger!

Risk of overheating

➔ Do not cover the transformer.

➔ Never cover the floor with thick carpets or other obstacles preventing a proper heat transfer.

You can only use the electric floor heating while the vehicle is connected to the 230 V supply. For your safety, a transformer reduces the mains voltage to a low voltage which is then fed to the heating foils.

Using the electric floor heating:

➔ Verify that the circuit protection for the 230-V power supply at the camping site is adequate. (350 W - 1.5 A)

➔ Check that the connection cable was fully unwound from the cable reel.

➔ Verify that the 230-V circuit breaker in the vehicle is switched on.

➔ If the vehicle has a NE 266 control panel, the floor heating is activated and deactivated by pressing the illuminated push sensor “AUX” (8.8.1).

➔ If the vehicle has a PSI control panel, the floor heating is activated and deactivated by selecting the icon for the floor heating in the temperature menu.

13.6.2 Hot water floor heating

The floor heating runs automatically together with the hot water of the Alde Compact.

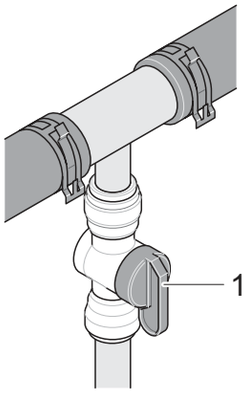


Figure 110 Alde floor heating setting valve

1 Setting valve

Putting into service:

➔ Open the setting valve in the bed box.

13.7 Aventa comfort air conditioning system (optional)

Note!

Using the air conditioner

➔ The air conditioning system is designed for a power consumption of up to 4.2 A. Before starting the device, first verify that the electrical installation of the camping ground is equipped with sufficiently rated fuses or circuit breakers (at least 6 A).

➔ Whenever possible, park your vehicle on a shadowy spot.

➔ Darkening windows and skylights reduces heat radiation.

➔ Regularly clean the vehicle roof (soiled vehicle roofs heat up more heavily).

➔ Thoroughly air your vehicle before switching on the air conditioner to remove the hot air that has built up inside the vehicle.

➔ Keep doors and windows closed during operation to avoid the formation of condensation on the air distributor.

➔ In order to speed up the cooling or heating process inside the vehicle:

– Set the fan speed to "High".

– Set the front/rear air distribution to centre position.

– Set the floor/ceiling air distribution to ceiling position.

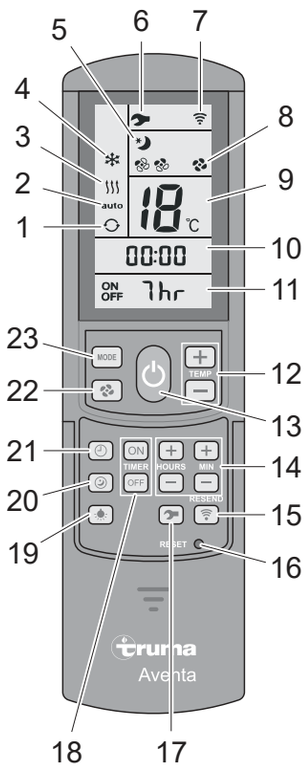


Figure 111 Remote control of the air conditioner

1	Air circulation indicator
2	Automatic mode indicator
3	Heating mode indicator
4	Cooling mode indicator
5	Sleep function indicator
6	Setup indicator
7	Data transmission indicator
8	Fan speed indicator
9	Temperature indicator
10	Time indicator
11	Timer activation/switch off time indicator
12	Temperature setting buttons
13	On/Off button
14	Time setting button
15	Resend button
16	Reset button
17	Setup button
18	Timer setting button
19	Ambient lighting button
20	Sleep function button
21	Time button
22	Fan speed button
23	Operating mode button

Putting into service:

➔ Connect the vehicle to the 230-V supply.

➔ Point the remote control to the infra-red receiver (Figure 112) for executing the individual switching operations.

Switching on:

➔ Use the "On/Off" button (Figure 111/13) to activate the air conditioner.
The settings that were last selected are stored/applied.

Setting the temperature:

➔ Use the "Temperature" selection keys (Figure 111/12) to set the desired temperature.

Selecting the operating mode:

➔ Select the desired operating mode by pressing the "Operating mode" button (Figure 111/23) once or several times.

- Cooling
- Heating
- Automatic mode (cooling or heating operation depending on the set room temperature)
- Air circulation

Setting the fan speed:

➔ Select the desired fan speed by pressing the "Fan speed" button (Figure 111/22) once or several times.

- low
- medium (not for heating operation)
- high

Switching off:

➔ Use the "On/Off" button (Figure 111/13) to deactivate the air conditioner.

Note!

It is also possible to control the air conditioner via the control panel of the Truma CP plus.

For further information on the device and its functions, please refer to the separate operating instructions provided by the manufacturer.

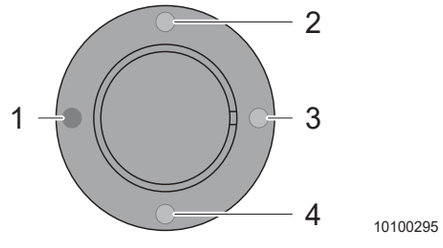


Figure 112 IR receiver

1 On/Off button without remote control
2 Heating mode LED
3 Data transmission/fault LED
4 Cooling mode LED

The IR receiver is located on the bottom side of the air conditioner.

Manually activating and deactivating the unit on the IR receiver:

➔ There is an additional push-button on the receiver (Figure 112/1) which allows switching the unit on and off without using the remote control (e.g. with a ballpoint pen).

➔ When the unit is switched on using this push-button, it is automatically reset to its default factory settings (automatic mode, 22 °C).

Indication of functions on the IR receiver:

- Yellow LED (Figure 112/2) steady (heating operation)
- Yellow LED (Figure 112/2) flashing (compressor start-up heating operation)
- Red LED (Figure 112/3) flashing (data are transmitted)
- Red LED (Figure 112/3) steady (fault)
- Blue LED (Figure 112/4) steady (cooling operation)
- Blue LED (Figure 112/4) flashing (compressor start-up cooling operation)

Red LED (Figure 112/3) is on:

➔ The air conditioning system indicates a fault. Switch off the air conditioner, wait for a moment and switch it back on. If the red LED is still on, please contact the Truma service centre.

14 Cooking

Danger!

Risk of poisoning due to carbon monoxide (CO) and lack of oxygen

- ➔ Before turning on the gas cooker or a gas oven (optional), always open a window, a skylight or a door.
- ➔ Never cover the forced ventilation in the roof hoods and in the entrance as well as the mushroom ventilators.

Danger!

Risk of explosion

- ➔ Risk of explosion! Never allow unburned gas to flow out!
- ➔ If a flame of the gas cooker extinguishes, unburned gas escapes until the flame failure device is activated. Combined with oxygen, this will produce an explosive atmosphere inside the vehicle!
- ➔ Watch the flames while using the cooker!
- ➔ When finished, shut the respective quick-action stop valve (see Chapter 11.7).

14.1 Gas cooker

The gas cooker is operated with liquefied gas.

Observe the following when operating the gas cooker:

- ➔ Always open a window or a roof hood (see Chapter 8.2).
  This supplies the vehicle with sufficient oxygen and leads away cooking vapours.
- ➔ Do not keep combustible objects, e.g. tablecloths, napkins, etc. near the gas stove. Risk of fire!
- ➔ Carefully observe the ignition process. The view must not be obstructed.
- ➔ Place the pots on the middle of the cooking positions.
- ➔ Use only pots with flat bottoms that are not larger than the respective gas burner grate.
- ➔ Do not allow the flames to extend beyond the pot edge.
- ➔ Always use cooking gloves or pot holders when handling hot pots, pans and similar items. Injury risk!
- ➔ Never use the gas cooker for heating.

Observe the following for the glass cover (optional):

- ➔ Do not apply pressure on the glass gas stove cover when closed.
- ➔ Do not close the glass cover while burners are still in operation or emit heat.
- ➔ Do not place hot cooking pans on the glass cover.
- ➔ In the case of frost, keep the kitchen window closed and provide ventilation in a different way. Otherwise, the temperature difference on the glass cover could cause damage.

14.1.1 Operation

Caution!

Defective cooking area

The burner does not operate properly. The flame goes out again and again despite the control knob being depressed for an extended period of time.

➔ The thermal element is bent or defective. Have defective thermal elements replaced by an authorised workshop. We recommend yearly inspection by a specialist.

Note!

➔ Always make sure the respective control knob is set to "Off" when you are finished using the hob, the grill or the oven.

➔ On models with electric ignition, proceed in the same manner as described, however, the flame is ignited by pressing the button for electric ignition on the control panel.

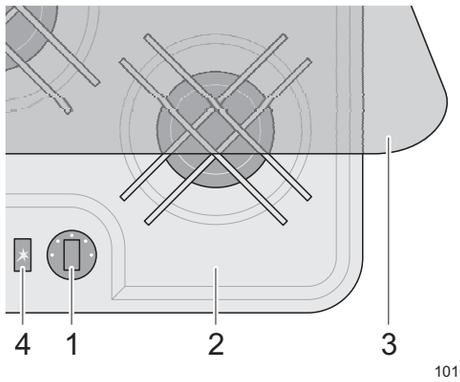


Figure 113 Gas cooker

1 Control knob
2 Cooking area
3 Glass cover
4 Gas igniter (optional)

Using the gas cooker correctly:

➔ Clean the gas cooker before starting to use it (Chapter 19.2.5.2).

➔ Fold up the glass cover (Figure 113/3) of the hob (Figure 113/2).

➔ Open the gas cylinder valve and quick-action stop valve on the distributor block (see Chapter 11.7).

➔ Turn the control knob (Figure 113/1) of the desired cooking position (Figure 113/2) to "large flame", press it and keep it depressed.
Gas flows out.

➔ Ignite the gas flowing out with a suitable device and keep the control knob (Figure 113/1) depressed for approx. 10 seconds until the flame safety device keeps the gas supply open.

– Piezo gas igniter: Each time the button (Figure 113/4) is pressed, a spark is created to ignite the gas.

– Electric gas igniter: When the button (Figure 113/4) is pressed, several ignition sparks are created until you release the gas igniter.

➔ If the flame goes out, repeat the process.

➔ Regulate the gas supply by turning the control knob to the "large flame" or "small flame" symbol.

Switching the gas cooker off:

➔ To switch off, turn the control knob clockwise to the "0 position".
The flame goes out and the flame safety device automatically shuts off the gas supply.

➔ Close the quick-action stop valve (see Chapter 11.7).

For further information, please refer to the manufacturer's separate operating instructions.

14.1.2 Extractor hood (optional)

The extractor hood is located above the gas stove.

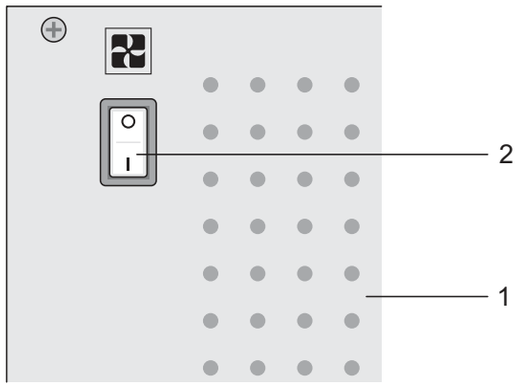


Figure 114 Extractor hood (example for switch arrangement)

1 Extractor hood
2 Rocker switch

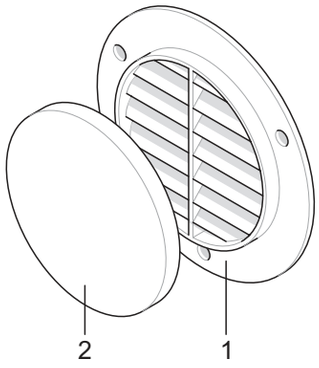


Figure 115 Extractor hood waste air opening

1 Extractor hood waste air opening
2 Cover

Using the extractor hood:

➔ Pull the cover (Figure 115/2) on the outside from the waste air opening (Figure 115/1).

➔ Use the rocker switch (Figure 114/2) to switch the extractor hood on when cooking (Figure 114/1). This prevents condensing water vapour and unpleasant odour in the vehicle.

➔ After switching off the extractor hood, reinstall the cover (Figure 115/2) on the waste air opening (Figure 115/1).

14.1.3 Switch for the kitchen fan and kitchen light

The switches for the kitchen fan and the kitchen light are located above the gas cooker.

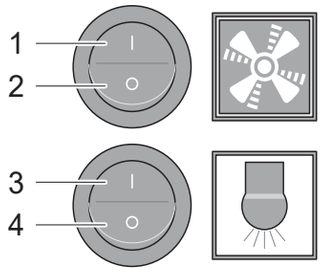


Figure 116 Switch for kitchen fan and kitchen light

1 Kitchen fan - On
2 Kitchen fan - Off
3 Kitchen light - On
4 Kitchen light - Off

14.2 Gas oven (optional)

Warning!

Risk of burns by hot surfaces

➔ Always wear protective gloves when handling hot items.

➔ Protect yourself and your children from contact with hot parts.

➔ After use, allow the grill and the oven to sufficiently cool down inside and outside.

Caution!

Damage to oven

➔ Never use the oven for heating the motorhome!

The oven is operated with liquid gas.

➔ Clean the gas oven before starting to use it (see Chapter 19.2.5.3).

➔ Ventilate the living area thoroughly (see Chapter 8.2).
Heat and condensation can be formed inside the vehicle when the oven is used.

➔ Before using the oven for the first time, heat it for 30 minutes to maximum temperature without placing any food items inside.
A light generation of smoke is normal.

14.2.1 Operation

Note!

➔ Always make sure the respective control knob is set to "Off" when you are finished using the hob, the grill or the oven.

➔ On models with electric ignition, proceed in the same manner as described, however, the flame is ignited by pressing the button for electric ignition on the control panel. The ignition of the oven and of the grill must be performed with the oven door open.

Depending on the model, the handle of the oven is either on the top or on the right on the oven door.

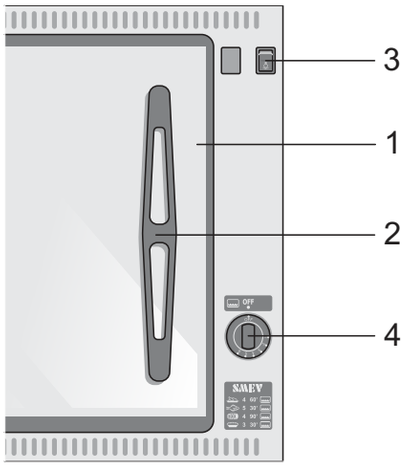


Figure 117 Oven - version 1

1 Oven door
2 Handle
3 "Lighting" switch
4 Rotary knob

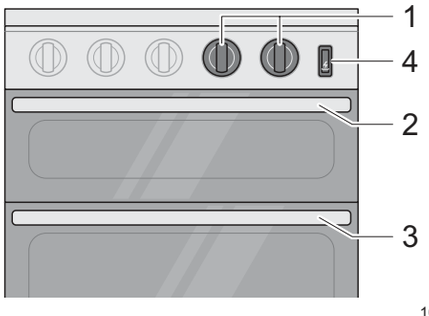


Figure 118 Oven - version 2

1 Rotary knob
2 Grill door handle (optional)
3 Oven door handle
4 Gas igniter (optional)

Some vehicles also have a grill fitted.

Note!

The grill door must remain open while using the grill.

Preparing to use:

➔ Open the gas cylinder valve (see Chapter 11.6.1).

➔ Open the quick-action stop valve on the distributor block (see Chapter 11.7).

Igniting the oven or grill:

➔ Completely open the oven or grill door.

➔ Hold the rotary knob pressed and turn to the corresponding ignition position (Grill: large flame/oven highest setting).

➔ For models without ignition feature: Ignite the burner with a suitable gas lighter and keep the rotary knob pressed for approx. 5-10 seconds.

➔ For models with ignition feature: Ignite the flowing gas with the gas igniter (Figure 118/4) and hold down the control knob (Figure 118/1) for approx. 10 seconds until the flame safety device keeps the gas supply open.

– Piezo gas igniter (Figure 118/4): Each time it is pressed, a spark is created to ignite the gas.

– Electric gas igniter (Figure 118/4): When the button is pressed, several ignition sparks are created until you release the gas igniter.

➔ On models with automatic ignition:

– Version 1: Press the rotary knob in the ignition position and hold it for approx. 5 to 10 seconds.

– Version 2: Press the rotary knob in the ignition position, press the ignition knob and hold the rotary knob for approx. 5 to 10 seconds.

➔ Now release the rotary knob and turn it to the desired thermostat setting.

Switching the oven off:

➔ Turn the rotary knob to the "Off" position.

Baking:

The following Table shows the average temperature in the middle of the oven for different thermostat settings. The actual temperature in the oven can vary depending on the ambient temperatures.

Thermostat position	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Version 1 [°C] approx.	130	160	180	200	220	240	-	-	-
Version 2 [°C] approx.	140	150	165	180	195	210	220	230	240

Tab. 6 Thermostat settings

15 Refrigerator & freezer compartment

The refrigerator that is installed in your vehicle is either produced by the company Dometic or the company Thetford.

The refrigerator and freezer compartment combination can be operated with 230 V, 12 V or liquid gas. In automatic mode, it will automatically choose the most appropriate operating mode.

For further information, please refer to the manufacturer's separate operating instructions.

Note!

Some illustrations show optional equipment which may not be installed in your vehicle.

15.1 Using the refrigerator

Clean your refrigerator before starting it for the first time (Chapter 19.2.5.4).

When the appliance is first put into service, there may be a mild odour which will disappear after a few hours. Thoroughly air the living area during this period.

If possible, make sure that the vehicle is parked on a level ground before starting your journey when putting the refrigerator into service and when filling it. This ensures the optimal functioning of the refrigerator.

The cooling performance is affected by:

- The ambient temperature (e.g. when the vehicle is exposed to direct sunlight).
- The amount of food to be cooled.
- The frequency of opening the door.

Note!

The higher the surrounding temperature and the lower the set cooling temperature, the more heat the refrigerator will dissipate. The heat is expelled through a ventilation grille in the vehicle's outer wall on the rear of the refrigerator.

- Depending on the refrigerator model, open windows and doors may have an adverse effect on the air circulation.
- When operated at higher ambient temperatures, installing an extractor fan (optional) can improve the performance of the refrigerator.

15.1.1 12-V mode

Only select the 12-V operating mode when the vehicle engine is running.

15.1.2 230-V mode

Select the 230-V mode only when an external 230-V supply is connected.

Before starting the journey, obtain information on the voltage in the country to be visited.

15.1.3 Gas mode

Danger!

Risk of explosion at petrol stations

Open flames are prohibited at petrol stations!

➔ Switch off the refrigerator while the vehicle is on the premises of a petrol station.

Caution!

Using gas

➔ Only use liquefied gas to run the refrigerator (see Chapter 11.3).

➔ At altitudes of more than 1000 m above sea level, physical factors may cause problems with the ignition of the gas. This is not a malfunction!

Using the refrigerator with gas:

➔ Open the gas cylinder shut-off valve and the quick-action stop valve (Chapter 11.7.1) on the distributor block.

15.1.4 Automatic operation

Refrigerators which can be operated with either 230 V, 12 V or liquefied gas will automatically select the most appropriate operating mode according to the following priority when set to automatic mode: alternating current, direct current and liquefied gas.

15.1.5 Winter operation

Caution!

Damage to the refrigerator

Not mounting the winter covers may damage the refrigerator when the outside temperatures are low.

➔ For AC and for DC mode, mount both winter covers.

➔ For gas mode or automatic mode, only mount the lower winter cover. This prevents heat accumulation and ensures that the exhaust emissions of the refrigerator are discharged correctly.

Note!

➔ Attach the winter covers also when the vehicle is taken out of service for an extended period of time or cleaned on the outside.

Check in winter operation:

➔ Regularly verify that the ventilation grilles are not obstructed by snow, ice, leaves or similar.
Attach the winter covers (optional) to the ventilation grilles when outside temperatures drop below +8 °C.

For further information, please refer to the manufacturer's separate operating instructions.

15.2 Control elements

15.2.1 Dometic 10 series

There are different types of control panel depending on the model.

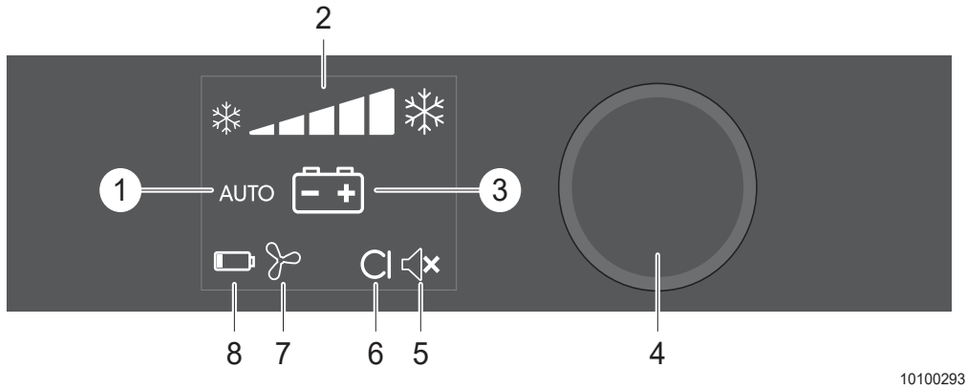


Figure 119 Control elements of the refrigerator (Dometic 10 series)

1 Automatic operation
2 Cooling performance indicator
3 Operation with direct current
4 Control knob
5 Beep tone off
6 CI bus icon
7 Fan (optional)
8 Battery

Switching on the refrigerator:

➔ Press and hold the control knob (Figure 119/4) for two seconds.
The refrigerator is switched on with the current settings.

Switching off the refrigerator:

➔ Press and hold the control knob (Figure 119/4) for four seconds.
The refrigerator emits a beep and switches off.

Navigation in the menu:

➔ Press the control knob (Figure 119/4) to activate the display.
➔ Turn the control knob to select the detailed menu you want to open.
➔ Press the control knob to open the selected detailed menu.
➔ Turn the control knob to navigate through the selected detailed menu.
The settings that were selected are displayed in blue.
➔ Press the control knob to highlight the selected setting.
➔ Confirm the selection with ↵.

For further information, please refer to the manufacturer's separate operating instructions.

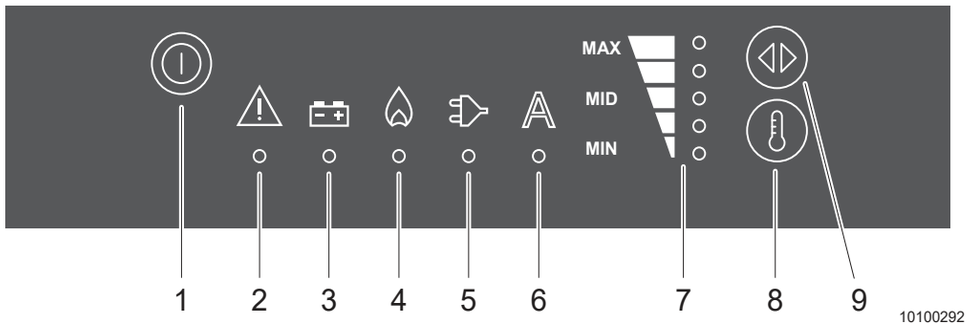


Figure 120 Control elements of the refrigerator (Dometic 10 series)

1 ON/OFF button
2 Fault display
3 Operation with direct current
4 Operation with gas
5 Operation with alternating current
6 Automatic mode
7 Temperature display
8 Temperature selection button
9 Energy selection key

Switching on the refrigerator:

➔ Press and hold the ON/OFF key (Figure 120/1) for two seconds.
The refrigerator is switched on with the current settings.

Switching off the refrigerator:

➔ Press and hold the ON/OFF key (Figure 120/1) for four seconds.
The refrigerator emits a beep and switches off.

Setting the energy source:

➔ Press the energy selector key (Figure 120/9) until the display shows the desired type of energy.

Setting the cooling level:

➔ Press the temperature selector key (Figure 120/8) until the display shows the desired temperature level.

For further information, please refer to the manufacturer's separate operating instructions.

15.2.2 Thetford N4000 E series

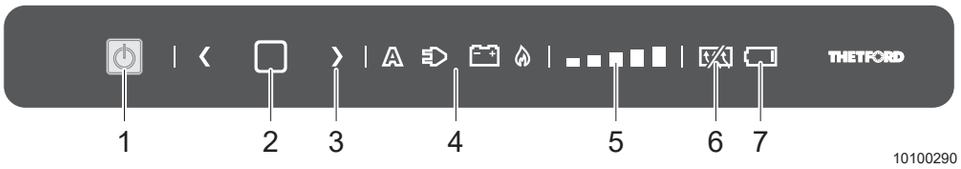


Figure 121 LED control elements of the refrigerator (Thetford N4000 E series)

1 ON/OFF button
2 Actuation button
3 Arrow keys
4 Energy sources
5 Cooling level display
6 Anti condensation
7 Empty battery (optional)

Switching the refrigerator on or off:

➔ Press and hold the ON/OFF key (Figure 121/1) for one second.
The light inside the ON/OFF key turns blue and the setting that was selected before switching the appliance off is indicated by a light.

Setting the energy source:

➔ Press and hold the confirmation button (Figure 121/2) for two seconds until the energy source icon starts flashing.
➔ Use the arrow buttons (Figure 121/3) to select the desired energy source.
➔ Briefly tap on the confirmation button to confirm the selected energy source.

Setting the cooling level:

➔ Press and hold the confirmation button (Figure 121/2) for two seconds until the energy source icon starts flashing.
➔ Press the confirmation button again. The cooling level indicators start flashing.
➔ Use the arrow buttons (Figure 121/3) to select the desired cooling level.
➔ Briefly tap on the confirmation button to confirm the selected cooling level.

For further information, please refer to the manufacturer's separate operating instructions.

15.2.3 Thetford T2000 series

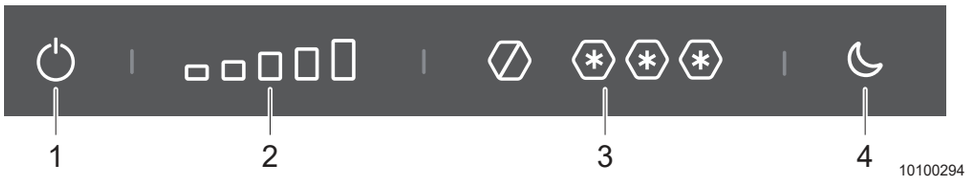


Figure 122 Control elements of the refrigerator (Thetford T2000)

1 ON/OFF button

2 Temperature settings refrigerator

3 Temperature settings freezer compartment

4 Night operation button

Switching the refrigerator on or off:

➔ Press and hold the ON/OFF key (Figure 122/1) for several seconds.

Setting the cooling level:

➔ Unlock the control panel. Press and hold the refrigerator (Figure 122/2), freezer compartment (Figure 122/3) or night mode (Figure 122/4) areas for several seconds until the corresponding icon starts flashing.

➔ Tap on the temperature symbols (Figure 122/2 or 3) to set the desired cooling level. After a few seconds, the control panel will save the settings and switch to standby mode.

For further information, please refer to the manufacturer's separate operating instructions.

15.3 Opening and locking the refrigerator door

Caution!

Damage to the refrigerator door

➔ Lock the refrigerator door before starting your journey.

Caution!

Damage to the refrigerator or the contents of the refrigerator

While driving, items stored inside the refrigerator can damage the refrigerator or may get damaged themselves.

➔ Make sure that the products inside the refrigerator cannot move while the vehicle is driving.

➔ Lock the bottles in the refrigerator door in place with the bottle holder (if available).

➔ Lock the bottles in the drawers in place with the drawer dividers (if available).

➔ Fix the food on the trays. The drop-out protection keeps food items inside the trays while the vehicle is driving (if available).

15.3.1 Dometic 10 series

Opening the refrigerator Dometic 10 series:

➔ Pull the handle and open the refrigerator door.

Closing the refrigerator Dometic 10 series:

The refrigerator door is equipped with an automatic lock.

➔ Push the refrigerator door until you hear a distinct clicking sound at the top and the bottom.

15.3.2 Thetford T2000 and N4000 series

The refrigerator doors of all Thetford refrigerator models are equipped with an automatic locking device. The models of the N4000 series allow attaching an additional safety lock at the refrigerator.

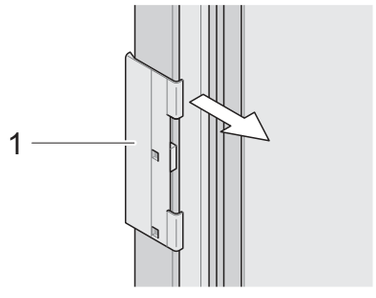


Figure 123 Locking device on the Thetford refrigerator door

1 Handle

Opening the Thetford T2000 series refrigerator:

➔ Pull the handle (Figure 123/1) and open the refrigerator door.

Locking the Thetford T2000 series refrigerator:

The refrigerator door is equipped with an automatic lock.

➔ Shut the refrigerator door and press firmly.
The refrigerator door locks automatically.

Locking the Thetford N4000 series refrigerator:

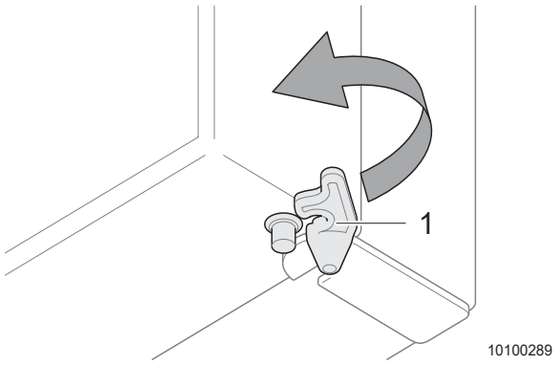


Figure 124 Additional locking device on the Thetford N4000 series

1 Safety lock

Locking the Thetford N4000 series refrigerator:

Some models are equipped with an additional safety lock at the bottom of the refrigerator.

➔ Push the safety lock across the pin on the refrigerator door.

15.4 Storing food

15.4.1 General information

- Switch the refrigerator on approx. 12 hours before storing food.
- Always store pre-cooled food only. When buying and transporting food, make sure the food is well pre-cooled. Use insulated bags for transport.
- Always open the refrigerator door just briefly.
- Always store the food separately and well packed (closed containers, aluminium foil, etc.).
- Never put hot food into the refrigerator. Always let it cool first.
- Store sensitive food directly near the fins.
- Bear in mind that the temperature inside a closed vehicle can rise significantly as a result of sun irradiation. This can affect the performance of the refrigerator.
- Make sure that air circulation of the refrigerator unit is not obstructed.

15.4.2 Freezer compartment

- Do not store carbonated drinks in the freezer compartment.
- The freezer compartment is suitable for making ice cubes and for short-term storage of frozen food.
- The freezer compartment is not suitable for freezing food!

15.5 Putting the refrigerator out of service

Note!

➔ Leave the refrigerator door ajar when the refrigerator is not used for a longer period of time. The refrigerator door has a special latching position for this purpose.

If you intend not to use the refrigerator for an extended period of time:

- Remove all food items from the refrigerator.
- Defrost the freezer compartment.
- Thoroughly clean the entire refrigerator.
- Attach the winter cover to the ventilation openings to protect your refrigerator while it is not in use.
- Leave the door of the refrigerator and the freezer compartment open while the appliance is not in use.

For further information, please refer to the manufacturer's separate operating instructions.

16 Toilet

Caution!

Damage to the environment

➔ Use an environmentally friendly and biodegradable chemical toilet additive.

➔ The cassette may be emptied only at camping grounds with suitable waste water treatment plants or special waste water disposal stations (e.g. at parking sites for camping vehicles).

Caution!

Material breakage

The toilet lid is not designed to bear the weight of a person and could break.

➔ Do not stand or sit on the toilet lid.

Caution!

Damage to the water pump during winter operation

➔ In winter operation, the toilet may be flushed only after the toilet compartment has been well heated, otherwise the water pump of the flush system could be damaged.

➔ Do not use antifreeze.

Caution!

Damage to the toilet and the cassette's gasket

➔ Always use the filler neck to pour toilet additives into the cassette. Do not use anti-freeze.

➔ Cleaning agents used for the toilet must not contain any chlorine or alcohol.

➔ Do not use excessive force to install the cassette. In case of a deadlock, check if the slider handle is in closed position.

Note!

➔ Do not leave water in the bowl when the toilet is not used. This does not prevent unpleasant odours but could cause flooding.

➔ Use quick dissolving toilet tissue in order not to affect the mechanical components of the cassette.

➔ When the vehicle is not heated while there is a risk of frost, the fresh water tank, the waste water tank and the waste-holding tank must be drained completely.

16.1 Dometic cassette toilet CT 4110

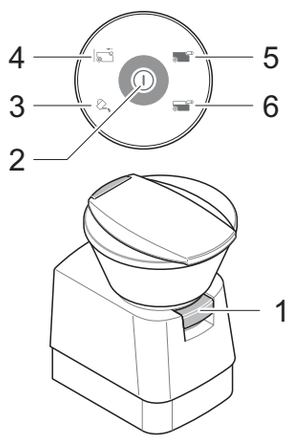


Figure 125 Dometic CT 4110

1 Slider handle
2 Flush button
3 Indicator “Replenish the fresh water tank”
4 Indicator “Cassette removed”
5 Indicator “Cassette full”
6 Indicator “Cassette ¾ full”

Note!

When raised the toilet seat engages approx. ⅔ up.

➔ Use a little extra force to fully open the toilet set.

Before using the toilet:

➔ Read the manufacturer's operating instructions and carry out all preparatory measures.

➔ Pour the toilet additives recommended by the manufacturer through the drainage pipe (Figure 126/2) into the cassette.
Follow the instructions on the proper dosage as specified on the toilet additive packaging.

➔ Fill the fresh water tank of the vehicle (see Chapter 12.2.5).

➔ Only use the toilet paper that is recommended by the manufacturer.

Using the toilet:

➔ Close the toilet lid and use both hands to turn the toilet bowl to the desired position.

➔ Pull forward the slider handle (Figure 125/1).
Leave the slider open while you are using the toilet.

➔ Fill some water into the toilet bowl before using the toilet. To do this, press the flush button (Figure 125/2).

➔ Press the flush button again after use to flush the toilet.

➔ Push back the slider handle.
Make sure that the slider is fully closed.

For further information, please refer to the manufacturer's separate operating instructions.

16.1.1 Cassette for Dometic cassette toilet CT 4110

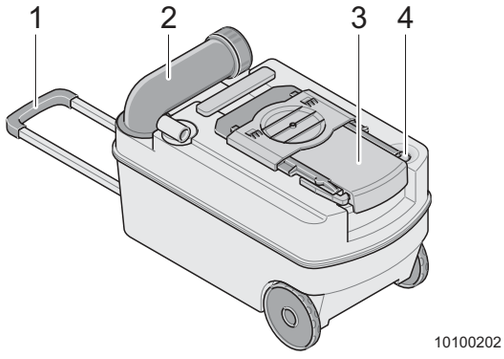


Figure 126 Cassette for CT 4110

1 Pull-out hand grip
2 Pivoting drainage pipe
3 Emptying shutter for toilet bowl
4 Vent plunger button for draining

Drain the cassette (Figure 126) when the level indicator (Figure 125/6) lights up. Do not allow the cassette to become overfilled.

Removing the cassette:

➔ Use the slider handle (Figure 125/1) to close the slider.
➔ Open the service hatch on the vehicle's outer wall.
➔ Push the cassette's locking device upwards.
The cassette is unlocked.
➔ Pull out and remove the cassette.

Emptying the cassette at a disposal site:

➔ Take the cassette to a disposal site.
➔ Keep the cassette upright.
➔ Swing the drainage pipe (Figure 126/2) upwards.
➔ Unscrew the drainage pipe's cover.
➔ Turn the cassette so that it drains completely.
➔ Use the thumb of the other hand to press the vent plunger button (Figure 126/4).
Do not press the vent plunger button before the drainage pipe points towards the ground. When pressing the vent plunger button, the cassette is drained without splashing.
➔ Thoroughly clean the cassette and the slider with water.
➔ When this is done, pour the toilet additive into the cassette.
Toilet additives help decomposing faeces more quickly, prevent odours and keep the cassette's interior clean.
The drainage pipe cover has a scale on the inside to measure the amount of additive.
➔ Install the cassette.
➔ Close the service hatch.

For further information, please refer to the manufacturer's separate operating instructions.

16.2 Thetford cassette toilet C-260

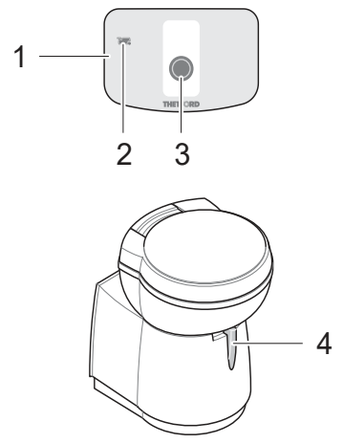


Figure 127 Thetford C-260

1 Operator panel
2 Waste level indicator
3 Flush button
4 Slider handle

Before using the toilet:

➔ Read the manufacturer's operating instructions and carry out all preparatory measures.

➔ Pour the toilet additives recommended by the manufacturer through the drainage pipe (Figure 128/2) into the cassette.
Follow the instructions on the proper dosage as specified on the toilet additive packaging.

➔ Pour about 3 litres of water into the cassette.

➔ Fill the fresh water tank of the vehicle (see Chapter 12.2.5).

➔ Only use the toilet paper that is recommended by the manufacturer.

Using the toilet:

➔ Close the toilet lid and use both hands to turn the toilet bowl to the desired position.

➔ You can use the toilet while the slider is open or closed.

➔ Before flushing, open the slider. Slide the slider handle (Figure 127/4) to the side.

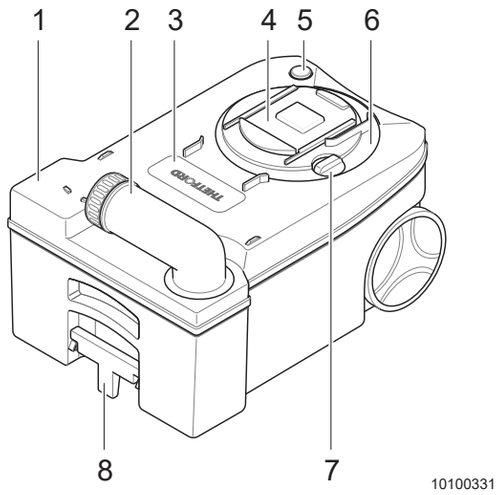
➔ Press the flush button (Figure 127/3) once to activate the actuator panel (Figure 127/1).

➔ Then, hold the flush button for several seconds to flush the toilet.

➔ Push back the slider handle.
Make sure that the slider is fully closed.

For further information, please refer to the manufacturer's separate operating instructions.

16.2.1 Cassette for Thetford cassette toilet C-260



1 Cassette
2 Pivoting drainage pipe
3 Automatic holding tank vent valve
4 Sliding cover
5 Vent plunger button
6 Cassette mechanism
7 Slider
8 Pull-out hand grip / latch

Figure 128 Waste tank for C-26x

Drain the cassette (Figure 128) when the level indicator (Figure 127/2) lights up. Do not allow the cassette to become overfilled.

Removing the cassette:

➔ Use the slider handle (Figure 127/4) to close the slider.
➔ Open the service hatch on the vehicle's outer wall.
➔ Use the pull-out handle (Figure 128/8) to unlock and remove the cassette.

Emptying the cassette at a disposal site:

➔ Take the cassette to a disposal site.
➔ Keep the cassette upright.
➔ Swing the drainage pipe (Figure 128/2) upwards.
➔ Unscrew the drainage pipe's cover.
➔ Turn the cassette so that it drains completely.
➔ Use the thumb of the other hand to press the vent plunger button (Figure 128/5).
Do not press the vent plunger button before the drainage pipe points towards the ground. When pressing the vent plunger button, the cassette is drained without splashing.
➔ Thoroughly clean the cassette and the slider with water.
➔ When this is done, pour the toilet additive into the cassette.
Toilet additives help decomposing faeces more quickly, prevent odours and keep the cassette's interior clean.
The drainage pipe cover has a scale on the inside to measure the amount of additive.
➔ Install the cassette.
➔ Close the service hatch.

For further information, please refer to the manufacturer's separate operating instructions.

16.3 Placing the toilet out of service

Note!

➔ When the vehicle is not heated while there is a risk of frost, the fresh water tank, the waste water tank and the waste-holding tank must be drained completely.

Putting the toilet out of service:

➔ Place a sufficiently large container underneath the drain plug of the fresh water tank.

➔ Open the drain plug, drain the fresh water tank and allow it to dry.

➔ Empty the cassette (Chapter 16.1.1 or Chapter 16.2.1).

➔ Leave the drainage pipe open to allow the cassette to dry.

➔ Clean the toilet (Chapter 19.2.6).

➔ Clean all seals and treat with care products for seals.

For further information, please refer to the manufacturer's separate operating instructions.

16.4 Preparing the toilet for winter mode

Caution!

Damage to the water pump during winter operation

➔ In winter operation, the toilet may be flushed only after the toilet compartment has been well heated, otherwise the water pump of the flush system could be damaged.

➔ Do not use antifreeze.

Note!

➔ Empty the cassette and water tank when the vehicle is not heated and there is a risk of frost.

For further information, please refer to the manufacturer's separate operating instructions.

17 Winter camping

17.1 Travelling in winter

Winter camping is becoming more and more popular. Your ***ADRIA*** vehicle is suitable, to the greatest possible extent, for use in winter and if you pay attention to the following information, your winter holiday in your own vehicle will become proper winter fun.

Note!

Before starting the journey, mount suitable winter tyres and have snow chains on board. Snow chains are prohibited on aluminium rims.

When camping in winter:

- ➔ Obtain exact information about road conditions and weather.
- ➔ Avoid roads with strong uphill/downhill gradients.
- ➔ Select the camping site carefully and in time, plan your arrival during the day.
- ➔ Carefully check the tyres, tread depth and tyre pressure (Chapter 22.2).
- ➔ Fill the windscreen washer unit with frost-proof cleaner, take reserve frost-proof cleaner for the journey with you.
- ➔ Before starting the journey, clear snow and ice from the roof, all windows, mirrors and lights as well as the wheel wells.
- ➔ Do not warm up the engine while parked, smoothly drive off immediately after you start the engine.
- ➔ Use only propane gas for winter camping.
- ➔ Allow for sufficient gas supplies.

Pitching the vehicle:

- ➔ Clear the snow from the parking area before pitching the vehicle.
- ➔ Do not park the vehicle underneath trees. Falling branches or pieces of ice can damage the roof and roof hoods.
- ➔ Check the underground regularly to prevent sinking in when thawing sets in.
- ➔ After pitching, secure the vehicle with wheel chocks against rolling away. Release the parking brake to prevent freezing.
- ➔ After travelling on salt-covered roads, the complete vehicle including the chassis has to be thoroughly washed with water.
- ➔ To prevent white rust formation of the galvanised parts, ensure adequate air circulation underneath the vehicle. Water must be capable of flowing off.
- ➔ Lay the 230-V power cable so as to prevent it freezing to the ground or being damaged when snow is cleared.

17.2 Winter operation

Danger!

Risk of suffocation

➔ Do not use any catalytic stoves or infra-red radiators in the vehicle. The oxygen in the living area is then used.

Caution!

Risk of damage through freezing

➔ Do not store any fluids in the unheated vehicle when there is a risk of frost.

➔ If the vehicle is left with the heating switched off for a longer period of time at low temperatures, the water pipes and tanks could freeze and thus be damaged.

➔ Empty the waste water system when there is a risk of frost and the heating is switched off.

➔ When there is a risk of frost and the vehicle is not heated, the water system must be carefully cleaned, thoroughly rinsed, completely emptied and thoroughly dried.

➔ When there is a risk of frost, water taps have to be left open in the unheated vehicle even when the water supply is drained. Drain the taps that have a "warm" and a "cold" position in both positions and leave them open in one of the positions.(Chapter 12.2.6).

The vehicle is insulated and suitable for use in winter when operated properly. The water supply is located inside the vehicle.

The snow and ice load can amount to several hundred kilograms and so reduce the additional load of your vehicle.

In winter, temperature differences and wet objects (e.g. ski clothes) in the vehicle increase condensation.

Warm air absorbs much more humidity than cold air. When the warm air in the vehicle cools down, water condenses in cold places (windows, window frames and storage compartments). This can be remedied by adequate heating with the air circulation switched on.

We recommend thermo-mats for the outside of the driver's cab. These keep the windows free from snow, ice and steam.

When camping in winter:

➔ Vent openings may not be covered by snow or snow drifts. Clear the snow also from underneath the vehicle so that the heater receives enough fresh air.

➔ Clear snow and ice off the roof, the canopy or the awning at regular intervals (Chapter 2.8).

➔ Always keep the heater exhaust free of any obstructions. Attach the cowl extension (optional).

➔ Provide for good ventilation (air circulation) and heating. Always keep the forced ventilation open.

➔ Use the awning as a wind guard and storage area for wet objects, e.g. ski equipment.

- ➔ Always open all cabinet doors, flaps and storage compartments when heating the vehicle to prevent condensation.
- ➔ Wipe off any condensation.
- ➔ Air and dry the cushions daily.
- ➔ Open windows and roof hoods when cooking.
- ➔ Avoid the use of electrical appliances that consume a lot of power. Camp sites do not have unlimited amounts of electricity.
- ➔ Make sure the waste water drain pipe does not freeze up.

17.3 Checklist for winter camping

Checklist for winter camping	✓
Winter tyres (tread depth at least 4mm)	
Snow chains (prohibited for aluminium rims!)	
New wipers (also as reserve)	
Antifreeze in wiper fluid (also as reserve)	
Thermal mat (to lay on), work gloves	
Anti-skid pads (traction aids), sand sack, small shovel	
Snow shovel, grit	
Brush	
Hand brush	
Talc, Vaseline for rubber seal	
Door lock and window de-icer	
Jump leads	
Plastic ice scraper	
Anti-mist cloth for windscreen	
Wheel chocks	
Antifreeze for the waste water tank (e.g. table salt)	
Torch / flashing hazard warning light (use new batteries)	
Winter cover for refrigerator ventilation grille	
Safety vest	
Umbrella	
Folding spade	
Spare bulbs	
Thermo-mats/hood for driver's cab	
Awning	
Winter bedding	
Watering can	
Heating tape (to thaw frozen pipes)	
Bucket or tank on wheels for waste water	

Tab. 7 Checklist for winter camping

18 Putting the vehicle out of service

Note!

The vehicle can be parked outdoors all year round, provided that the instructions for maintenance and care and the checklist for putting out of service are observed.

18.1 Checklist for temporarily putting the vehicle out of service

	Activity	✓
Body (super-structure)	Keep the forced ventilation and all mushroom ventilators open.	
	Carefully wash the vehicle and apply a paint protection product (wax).	
	Repair paintwork damage. Your ***ADRIA*** dealer will be pleased to advise you with respect to suitable products.	
	Move the vehicle every four weeks in order to avoid “flat spots” and damage to the wheel bearings. Secure the vehicle with wheel chocks from rolling away.	
	Regularly check the tyre pressure.	
	Disengage the parking brake.	
	Protect the tyres from direct exposure to the sun.	
	Thoroughly air the vehicle every four weeks. If the vehicle is to be parked in an enclosed area, at least two windows must remain open.	
	Provide for good ventilation in the underbody area.	
	Cover the exhaust cowl, if possible	
	If the vehicle is covered with a tarpaulin, make sure air can still circulate above the roof. The tarpaulin must not rest directly on the roof to prevent it from sticking to the roof. Light wooden slats allow for air circulation on the roof.	
	Open all blinds and curtains to avoid damage caused by conden-sation.	
Electrical system	Recharge the starter and living area batteries for at least 24 h.	
	Disconnect terminals from living area battery poles	

	Activity	✓
Gas system	Close the gas cylinder valve on the gas cylinder.	
	Close all quick-action stop valves for all appliances.	
	Always remove all gas cylinders from the gas locker and store them safely.	
	Close the open end of the gas hose so that no dirt or insects can enter.	
Water system	Empty the entire water system completely, clean carefully and allow to dry.	
	Leave all water taps, all drain cocks as well as all drain valves open. Drain the taps that have a "warm" and a "cold" position in both positions and leave them open in one of the positions.	
	Bacteria and algae can form inside the fresh water tank. Therefore, after the end of the journey, the fresh water tank must always be drained, thoroughly cleaned (Chapter 12.2.6) and allowed to dry. We recommend using a disinfectant for the fresh water tank. Ask your ***ADRIA*** dealer for advice.	
Built-in appliances	Empty and clean the refrigerator; leave the refrigerator door and the freezer compartment, if applicable, open.	
	For information on temporarily putting the appliances out of service, please refer to the separate operating instructions of the respective appliance.	
Living area	Leave all cabinet doors, access doors, storage compartments, seat chests and bed boxes open.	
	Clean the living area and storage compartments.	
	Stand all the cushions up for ventilation or store them in the house.	
	Make sure the forced ventilation is open and not covered.	

Tab. 8 Checklist for temporarily putting the vehicle out of service

18.2 Checklist for putting the vehicle out of service during winter

The following measures are required in addition to those already mentioned for the temporary putting out of service over the winter.

	Activity	✓
Body (super-structure)	Clear snow from the roof when it snows.	
	Thoroughly heat and ventilate the vehicle every four weeks.	
	Lubricate all hinges and locks.	
	Coat all rubber seals with talcum or Vaseline.	
	Use graphite dust to treat locking cylinders.	
	Install the winter cover for the refrigerator grille (optional).	
Electrical system	Recharge the starter and living area batteries for at least 24 h. Remove the living area battery and store it protected against frost. Charge the starter battery and removed living area battery every month.	
Built-in appliances	For information on putting the appliances out of service over winter, please refer to the separate operating instructions of the appliances.	
Living area	Make sure the forced ventilation is open and not covered.	
	Keep all cushions dry in the house.	
	Position dehumidifiers and check them regularly.	

Tab. 9 Checklist for putting out of service over the winter

18.3 Checklist for putting the vehicle into service again after laying up

Perform the following activities for putting the vehicle into service again after it has been laid up.

	Activity	✓
Body (super-structure)	Remove tarpaulin and any wooden slats, if applicable.	
	If the vehicle has been stationary for a long period (approx. 10 months), have the brake system checked by an authorised workshop.	
	Check the tyre pressure, including that of the spare wheel (optional).	
	Remove cover from the exhaust cowl, if present.	
	Remove the winter cover from the refrigerator grille (optional).	
	Check the function of all doors, windows, flaps and hatches.	
	Check the function of all external locks (e.g. entrance door, filler neck, flaps, etc.).	
Electrical system	Connect starter and living area battery Recharge the starter and living area batteries for at least 24 h.	
Gas system	Lash the gas cylinders in the gas locker and connect gas cylinders.	
	If the vehicle has been stationary for a long period (approx. 10 months), have the gas system checked by an authorised workshop.	
Electrical system	Check the function of the electrical system (e.g. lighting, sockets) and of all appliances (e.g. refrigerator).	
	Checking the function of the ground-fault circuit breaker:	
Water system	Thoroughly rinse the complete water system with plenty of fresh water; leave the taps open.	
	Close all water taps and drain valves.	
	Check for leakage and function of all water taps and drain valves.	
Built-in appliances	For information on putting the appliances into service, please refer to the separate operating instructions of the appliances.	
	Check the function of all appliances (e.g. refrigerator, cooker, heater, etc.).	
Living area	Replace all cushions.	
	Remove dehumidifiers.	

Tab. 10 Checklist for putting the vehicle into service after laying up

19 Cleaning & care

19.1 Cleaning and care - exterior

The polyester outer skin (glass-fibre reinforced plastic) of the vehicle was dyed at the factory, i.e. not painted. We recommend the following steps for the care of the vehicle:

Warning!

Risk of injury and of damage to the vehicle roof

- ➔ The front area of the roof of the vehicle is not designed for the weight of standing persons.
- ➔ Standing or walking on the elevation of the alcove or the front opening hood of partially integrated vehicles is not allowed!
- ➔ Do not walk on roof structures or roof fittings, e.g.. roof hoods, roof railings etc.
- ➔ Walking on the roof of the vehicle is permissible only in the rear area.

Note!

- ➔ Never drive the vehicle through a wash facility. The acrylic glass windows will be scratched by the rotating cleaning brushes.
- ➔ When cleaning the vehicle with a high-pressure cleaner, maintain a distance of approx. 70 cm from the nozzle to the vehicle surface.
- ➔ Never point the water jet directly towards doors, windows, flaps and vent openings. Splashing water can penetrate the vehicle through the circumferential air gap between the glass dome and the frame (forced ventilation).
- ➔ Do not spray directly on deco foils as they could become detached.
- ➔ Never point the water jet directly towards electric accessories and plug connections.
- ➔ Do not use glass cleaners, abrasives, solvents, cleaning agent containing methylated spirit or alcohol. This would result in cracks or embrittlement of the acrylic material.
- ➔ Avoid everything that could cause scratching or scoring.
- ➔ Avoid torsional forces when opening and closing the windows.

- ➔ Wash the vehicle with plenty of cold to lukewarm water and cleaning agent. Then dry thoroughly.
- ➔ You can purchase suitable cleaning agents and additives from your ***ADRIA*** dealer.
- ➔ Bird droppings, tree gum, berries, road salt, sea salt, etc. must always be removed immediately.
- ➔ Clean windows only with plenty of lukewarm water and mild soap solution.
- ➔ Treat rubber seals on doors, windows and flaps with talc or Vaseline.
- ➔ Check the condition of the underseal once a year. If the underseal is defective, contact your ***ADRIA*** dealer.
- ➔ The chassis is galvanised. Apply a zinc coating on areas where rust is beginning to form (e.g. caused by stone-chipping or other effects) to seal these areas.
- ➔ After driving in winter on salt-covered roads, thoroughly clean the galvanised surfaces and aluminium components and rinse with clear water.

- ➔ To prevent the formation of white rust (only a visual defect) on the galvanised parts, ensure adequate air circulation underneath the vehicle. Water must be capable of flowing off.
- ➔ When staying near the sea, regularly wash the vehicle with clear fresh water.
- ➔ The painted outer surface of the vehicle can be preserved with a commercially available wax. Follow the operating instructions of the manufacturer.
- ➔ Treat polyester parts every year with a two-component wax. Follow the operating instructions of the manufacturer.
- ➔ Observe the environmental protection measures in cleaning and care of the vehicle.

19.1.1 Cleaning the acrylic windows (side windows, roof hoods)

Note!

- ➔ Never drive the vehicle through a wash facility. The acrylic glass windows will be scratched by the rotating cleaning brushes.
- ➔ When cleaning the vehicle with a high-pressure cleaner, maintain a distance of approx. 70 cm from the nozzle to the vehicle surface.
- ➔ Never point the water jet directly towards doors, windows, flaps and vent openings. Splashing water can penetrate the vehicle through the circumferential air gap between the glass dome and the frame (forced ventilation).
- ➔ Do not use glass cleaners, abrasives, solvents, cleaning agent containing methylated spirit or alcohol. This would result in cracks or embrittlement of the acrylic material.
- ➔ Avoid everything that could cause scratching or scoring.
- ➔ Avoid torsional forces when opening and closing the windows.

Note!

Condensation water can form between the double windows of the acrylic glass window. The condensation water disappears by itself, however, this takes some time.

Acrylic glass windows are very delicate and require very careful handling. Non-compliance with the cleaning instructions voids the manufacturer's warranty.

- ➔ Clean the windows with only warm water and a soft, clean sponge or cloth.
- ➔ If the windows are very dirty, use a solution with water and mild soap solution to keep the windows clear and free from electrostatic charging.
- ➔ For stubborn soiling, we recommend a special cleaning agent for acrylic glass which is available from your ***ADRIA*** dealer.
- ➔ Do not use scouring agents. They would scratch the plastic surfaces.
- ➔ After cleaning the vehicle, rinse all acrylic glass windows with clean water.
- ➔ Treat rubber seals with talc.
- ➔ Regularly lubricate all moving parts, hinges and flaps with acid-free grease (e.g. Ballistol).
- ➔ Do not allow water to penetrate the mechanical parts.
- ➔ The insect screens and blackout blinds can be cleaned with a soft brush. If the insect screens and blinds are very dirty, use water and mild soap solution to wash them. Then allow the screens and the blinds to dry well.

19.1.2 Cleaning plastic components

- ➔ Clean plastic parts only with warm water, mild household cleanser and a soft, clean sponge or cloth. The aqueous solution should contain 2% cleaning agent at the most.
- ➔ Do not use scouring agents. They would scratch the plastic surfaces.
- ➔ Very greasy or oily spots can be washed with ethyl, isopropyl or isobutyl alcohol. Organic solvents (e.g. acetone, methanol or ethanol) could damage the material.
- ➔ An example of possible damage to moulded plastic parts are stress cracks caused by different media. Other chemicals can have a swelling and softening effect on the plastic material. Therefore, plastic parts should only be subjected to contact with the solvents referred to above briefly (not more than 2 minutes) at room temperature.
- ➔ Avoid mechanical loads (e.g. clamping, twisting) of the plastic parts during cleaning in order to prevent distortion.

19.1.3 Slide-out bed maintenance

Caution!

Damaging the slide-out

The rubber seal (Figure 75/2) between the vehicle exterior and the slide-out (Figure 75/1) must always be clean and greased.

- ➔ Grease the rubber seal after moving the slide-out mechanism in and out 10 to 15 times (or at least twice per year).

The rubber seal of the slide-out system can be permanently damaged if it is insufficiently greased or dry.

- ➔ To prevent permanent damage to the slide-out system only operate it when the rubber seal is sufficiently greased.

We recommend the lubricant GETREN P for this purpose. GETREN P is available from your ***ADRIA*** dealer.

Pay attention to the manufacturer's safety notices during the application of GETREN P.

19.2 Cleaning and care - interior

Note!

Exposure to sunlight can cause the plastic parts to yellow. This is not a quality defect.

Note!

- ➔ Use only commercially available, mild cleaning agent to clean the vehicle. Ask your***ADRIA*** dealer for advice.
- ➔ Do not use caustic or abrasive cleaning agent.
- ➔ Avoid everything that could cause scratching or scoring.

19.2.1 Maintaining the furniture

- ➔ Clean the furniture with a soft cloth and a commercially available furniture polish, do not use intensive cleansers.
- ➔ Wash the work surfaces with water by adding a mild detergent or household cleanser.
- ➔ Clean textile storage spaces and textile cabinets with cleansing foam.

19.2.2 Maintaining the cushions, curtains and net curtains

- ➔ Small spots in the cushions can be removed with commercially available cleaning foam for use on cushions or the foam of mild detergent.
- ➔ Do not wash cushions.
- ➔ Protect upholstery from direct sunlight so that it does not fade.
- ➔ Have large spots or soiling removed by the dry cleaners.
- ➔ Have curtains and net curtains cleaned by the dry cleaners only.
- ➔ Brush insect screens and Roman shades with a soft brush or vacuum with the brush attachment of the vacuum cleaner.
- ➔ Grease spots on Roman shades can be removed with mild, warm laundry soap.

19.2.3 Cleaning plastic components

Warning!

Risk of injuries through caustic substances

- ➔ Do not get acids into the eyes or on mucous membranes! Avoid skin contact!
- ➔ To remove limescale deposits, use only highly diluted, commercially available acids (e.g. acetic acid).

- ➔ Clean plastic parts only with warm water, mild household cleanser and a soft, clean sponge or cloth. The aqueous solution should contain 2% cleaning agent at the most.
- ➔ Do not use scouring agents. They would scratch the plastic surfaces.
- ➔ Very greasy or oily spots can be washed with ethyl, isopropyl or isobutyl alcohol. Organic solvents (e.g. acetone, methanol or ethanol) could damage the material.
- ➔ An example of possible damage to moulded plastic parts are stress cracks caused by different media. Other chemicals can have a swelling and softening effect on the plastic material. Therefore, plastic parts should only be subjected to contact with the solvents referred to above briefly (not more than 2 minutes) at room temperature.

➔ Avoid mechanical loads (e.g. clamping, twisting) of the plastic parts during cleaning in order to prevent distortion.

➔ To prevent limescale deposits, the water used must be softened. When limescale deposits occur on surfaces, they can be removed with a diluted acid solution (e.g. acetic acid).

19.2.4 Maintaining the PVC floor coverings and carpets (optional)

Caution!

Risk of damage

➔ Do not place the carpet on the wet PVC floor covering, the carpet and PVC floor covering may stick together and could tear the PVC floor covering off when the carpet is removed again.

➔ It is also possible that mould will form between the PVC floor covering and the carpet.

➔ Wash the PVC floor covering with a commercially available cleanser and allow to dry well. Do not use wax.

➔ Never use abrasives or aggressive cleaners.

➔ Vacuum clean the carpet.

➔ Clean spots with carpet foam.

19.2.5 Cleaning the kitchen

19.2.5.1 Cleaning the work surfaces and the sink

➔ Wash the work surfaces with water to which a mild detergent or household cleanser has been added and dry the surfaces.

➔ Clean the stainless steel sink with a commercially available cleanser.

19.2.5.2 Cleaning the gas cooker

Caution!

Damage to the gas cooker

➔ Prevent water or cleaning agent from penetrating the gas outlet openings. Water may damage the gas cooker.

➔ Do not use scouring agents. These scratch the surfaces.

➔ Allow the gas cooker to cool before cleaning.

➔ Clean the gas stove only with a moist cloth.

➔ Use a glass cleaning agent for cleaning the glass cover (optional) of the cooker.

19.2.5.3 Cleaning the oven

Caution!

Damage to seals and surfaces

- ➔ Do not allow the door seal to come into contact with oil or grease.
- ➔ Do not use scouring agents. These scratch the surfaces.

- ➔ Clean the inside and outside of the appliance before you place it into service. Once the appliance is in use, clean it at regular intervals.
- ➔ Use only soft cloths. Clean the appliance only with mild household cleaners.
- ➔ Then rinse the appliance with fresh water and dry thoroughly.

19.2.5.4 Cleaning the refrigerator

Caution!

Damage to seals and surfaces

- ➔ Do not use soap, abrasive or soda-based cleaning agent.
- ➔ Do not allow the door seal to come into contact with oil or grease.
- ➔ Do not use scouring agents. These scratch the surfaces.

- ➔ Clean the inside and outside of the appliance before you place it into service. Once the appliance is in use, clean it at regular intervals.
- ➔ Use only soft cloths. Clean the appliance only with mild household cleaners.
- ➔ Then rinse the appliance with fresh water and dry thoroughly.
- ➔ Remove dust from the refrigerator unit at yearly intervals using a brush or soft cloth. The refrigerator unit is accessible through the upper refrigerator grille.

19.2.6 Cleaning the bathroom

Caution!

Damage to surfaces

➔ Do not clean the bathroom and the toilet with solvents or cleaning agent containing alcohol. Do not use scouring agents.
  – These could cause cracks or embrittlement of the plastic material.

➔ Do not pour caustic substances or boiling water into the drains.
  – These damage both the drain pipes and the siphon traps.

➔ Do not allow the door seal to come into contact with oil or grease.

➔ Do not use scouring agents. These scratch the surfaces.

➔ Do not use vinegar essence for decalcifying the toilet and the water system. Use only commercially available mild decalcifying products that do not affect the plastic material.
  – Ask your ***ADRIA*** dealer for advice.

➔ Clean the bathroom and the toilet only with warm water, a soft cloth or sponge and mild, standard cleaning agent.

➔ Clean the toilet compartment only with a moist cloth and mild cleaning agent.

➔ The seals of the cassette, the vents and the lid as well as the valve blades of the toilet must be cleaned regularly with a mild cleaning agent for plastic materials.

19.2.7 Cleaning the fresh water tank, the waste water tank and cassette

➔ Each time before filling the fresh water tank, the waste water tank, the cassette and all piping, use a commercially available cleaning agent to thoroughly clean them and rinse them with plenty of water.

➔ Before you put the vehicle out of service, the fresh water tank, the waste water tank and the cassette must be carefully cleaned, thoroughly rinsed, completely emptied and thoroughly dried.

20 Inspections & maintenance

20.1 Inspection work

Note!

As with any vehicle, the motorhome must be officially inspected at regular intervals (Chapter 2.4).

Note!

Use only original spare parts from the respective manufacturer.

- ➔ Inspection and maintenance work (Chapters 20.3 and 20.4) must be performed at regular intervals.
- ➔ Since special technical knowledge is required for the performance of the maintenance and inspection work, it has to be performed by authorised workshops.
- ➔ Regular maintenance guarantees value retention of the vehicle.

20.2 Brakes

Warning!

Risk of injury and severe damage to the vehicle

- ➔ Check brake system at regular intervals.
- ➔ All repairs and adjustments of the brake system have to be performed in an authorised workshop only!

The wear of the brake lining depends on the driving technique.

- ➔ Consult an authorised workshop immediately if the braking behaviour is not normal (pulling to one side or reduced braking pressure).
- ➔ Drive with consideration and foresight.
- ➔ Avoid braking abruptly.
- ➔ Have the brake system inspected regularly.

20.3 Chassis

In addition to the maintenance work specified by the basic vehicle manufacturer, the following maintenance work has to be performed:

Maintenance activity	Interval
Motorhome general inspection	According to regulations in the country of registration
Have the brake system checked in an authorised workshop	Every year
Have the underseal checked	Every year
Check the tightening torque of wheel nuts	Monthly
Check tread depth and tyre pressure	Before starting to drive
Check the exterior lighting	Before starting to drive

Tab. 11 Chassis maintenance and inspection plan

For the frequency of the individual maintenance tasks, please refer to the separate manufacturer's instruction manual.

On vehicles that are not driven much, the maintenance work must be performed every year and in time before the start of the journey.

20.4 Body (superstructure)

Maintenance activity	Interval
Delivery check	Before delivery
Replace the gas regulator and gas hose	Every 10 years
Official gas inspection	Every 2 years
Leakage test	According to warranty conditions
Bodywork inspection	Every year
Have the electrical system checked	Every year
Have the gas system checked	Every year
Check screw connections of fixing clamps of roof hoods	Every year
Rub talc on seals on doors, windows and roof hoods	Every year
Clean the moving parts of the entrance step (optional) and the corner steadies (optional) and lubricate them with grease	Half-yearly
Check water pipes and fittings for leaks and correct attachment	Half-yearly
Check charged condition of living area battery	Monthly

Tab. 12 Bodywork maintenance and inspection plan

20.5 Checking and replenishing operating fluids

Operating fluids include:

- Engine oil
- Brake fluid
- Coolant
- Wiper water
- Power steering oil
- Cooling medium for the air-conditioning system (optional)
- Heater liquid for hot water heating (optional)

Please see the manufacturer's original operating instructions for checking operating fluids.

20.5.1 Servicing the fresh water tank

On some models the fresh water tank (Chapter 12.2.1) is located in the seat box (Chapter 8.11.4).

➔ Remove the cushions.

➔ Fold up the seat cushions to access the service opening of the fresh water tank.

20.5.2 Checking and replenishing the fluid level of the Alde Compact

Note!

- Avoid bubbles.
- Always position the vehicle horizontal and level.

The expansion tank of the Alde Compact is normally fitted in the wardrobe.

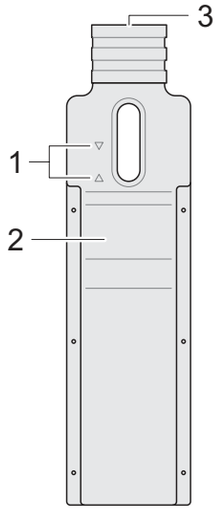


Figure 129 Checking the Alde water level

1 Water level markings
2 Protective cover
3 Lid with pump (behind cover)

Checking the water level:

➔ Switch the Alde Compact off using the control panel.

➔ Let the water cool down.

➔ Check the water level is between the two markings (Figure 129/1).

Topping up water:

➔ Remove the protective cover (Figure 129/2).

➔ Unscrew the lid (Figure 129/3) and remove the lid with circulation pump slowly upwards.

➔ Check the antifreeze content. Antifreeze must be 40% or -25 °C.

➔ Fill water with antifreeze without bubbles to about 1 cm above the minimum marking.

21 Troubleshooting

Please pay attention to the following information for finding and correcting faults.

If you cannot remedy the faults yourself, contact the Customer Service of your local ***ADRIA*** dealer or the respective appliance manufacturer (heater = Truma, toilet = Thetford, etc.).

Warning!

Risk of injury and severe damage to the vehicle

➔ All repairs on the vehicle and on the brake system have to be performed in an authorised workshop only!

21.1 Changing a wheel

21.1.1 Securing the vehicle

➔ Wear a warning vest (different regulations from country to country).
➔ If possible, remove the vehicle from the flowing traffic.
➔ Secure the vehicle with a warning triangle and possibly a warning light.
➔ Apply the parking brake and engage the first gear or reverse gear.
➔ Secure the vehicle with wheel chocks from rolling away.

21.1.2 Vehicles with tyre mobility system (optional)

Warning!

Health hazard

The spray contains ethylene glycol and **must not be used by asthmatics**.

➔ Do not breathe in the vapours during repair.

Avoid contact with your eyes, skin and clothes.

➔ Immediately rinse off with plenty of water.
➔ Immediately consult a doctor if an allergic reaction occurs.

Note!

➔ With the tyre mobility system, tyres can be repaired whose treads were pierced by foreign objects with a diameter of **4 mm max**.
➔ The tyre mobility system is approved only for filling the tyres of a vehicle that was equipped by the factory with this tyre mobility system.
➔ Repaired tyres may be used only for a short period!
➔ Repair with the tyre mobility system is only a temporary measure!

The tyre mobility system can be found in the front part of the vehicle.
The scope of delivery includes:

- Spray can with sealing fluid
- Folded sheet with instructions
- Compressor with manometer and connecting pieces
- Adapter for pumping up various elements

Before repair:

Do not pull out any foreign objects (screws or nails) that have penetrated the tyre.

➔ Before repair, carefully check the tyre side wall.
Do not use the tyre mobility system when the tyre has already been damaged by driving with the flat tyre.

➔ Also check the rim.
When the rim is damaged (deformation of the bead of the rim that causes the loss of air), repair is not possible.

After repair:

➔ Stop after driving for approx. 10 minutes and check the tyre pressure.

➔ Consult a tyre repairman as soon as possible.

➔ Inform the tyre repairman that the tyre has been repaired with the tyre mobility system.

➔ Give the instruction sheet to the persons who have to repair the tyre that was treated with the tyre mobility system.

For more information concerning the tyre mobility system, please refer to the separate manufacturer's operating instructions.

21.1.3 Vehicles with spare wheel (optional)

21.1.3.1 Vehicle jack (optional)

Danger!

Severe injuries by crushing

➔ Use only a vehicle jack with adequate lifting capacity. Determine the required lifting capacity in the technical data of your vehicle based on the gross weight rating.

➔ Never position the vehicle jack on the bodywork. Position the vehicle jack only at the intended positions.

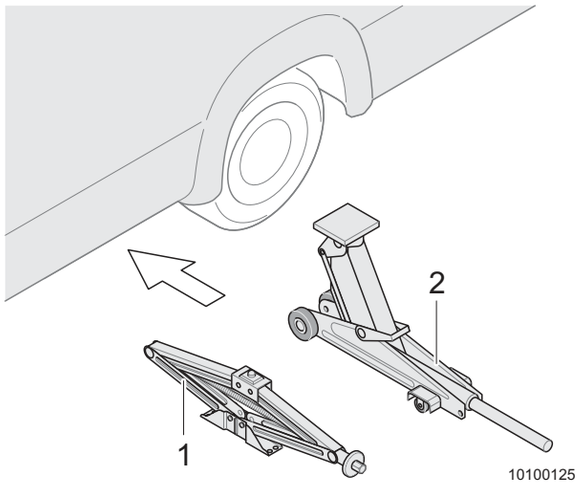
➔ The wheel jack is only provided for wheel changing. Never use it for working underneath the vehicle.

➔ Jack up the vehicle only on level and firm ground.

➔ Do not lie underneath the jacked up vehicle.

➔ Do not use the corner steadies for lifting the vehicle.

For changing the wheels, we recommend using the included vehicle jack or a hydraulic trolley jack which is available as an accessory.



1 Vehicle jack
2 Hydraulic trolley jack (optional)

Figure 130 Jacking up with the vehicle jack

The vehicle jack and the onboard tool set are under a seat in the driver's cab or in the rear garage.

➔ Only position the vehicle jack (Figure 130/1) or the hydraulic trolley jack (optional) (Figure 130/2) at the lifting points provided underneath the car body.

For more information concerning the vehicle jack, please refer to the separate manufacturer's operating instructions.

21.1.3.2 Spare wheel storage location

Vehicles with rear garage

➔ Open only the door of the rear garage facing away from the traffic.
➔ Take the spare wheel out of the support.
➔ Change the defective wheel.
➔ Stow the damaged wheel properly after a wheel change.

Vehicles without rear garage

➔ The spare wheel is located in a holder underneath the chassis.
➔ Loosen the locking pins and remove the screws.
➔ Open the bar and take out the spare wheel.
➔ Change the defective wheel.
➔ Stow the damaged wheel properly after a wheel change.

21.1.3.3 Changing a wheel

Warning!

Risk of injury when the vehicle rolls away

➔ Perform the wheel change only when the vehicle has been secured.

Caution!

Unsafe wheel attachment

For light-metal rims, different wheel bolts (diameter, length) can be used than for steel rims.

➔ Ensure the bolts are not interchanged.

➔ Always use the correct wheel bolts.

➔ Secure the vehicle (Chapter 21.1.1).

➔ Shut off the engine and apply the parking brake.

➔ Engage the first gear or reverse gear.

➔ Place the wheel chocks before and behind the opposite wheel. This secures the vehicle from rolling away.

➔ Put the spare wheel and the required tools in place so they are ready at hand.

➔ Remove the protective caps from the wheel nuts or the wheel cover.

➔ Unscrew the wheel nuts or wheel bolts by half a revolution with the wheel spanner.

➔ Position the vehicle jack and jack up the vehicle until the defective wheel is off the ground (Chapter 21.1.3.1).

➔ Screw out the wheel nuts or wheel bolts and place them onto a clean surface. Make sure the threads are clean.

➔ Change the wheel.

➔ Clean the threads, turn in the wheel nuts or bolts and tighten by hand.

➔ Stow the defective wheel in the spare wheel support.

➔ Lower the vehicle and remove the vehicle jack.

➔ Tighten the wheel nuts crosswise (Chapter 21.1.4).

➔ Stow the tools and the safety equipment.

➔ Check the tyre pressure at the next opportunity.

➔ After driving approx. 50 km, check the seating of the wheel nuts or bolts and tighten.

21.1.4 Tightening the wheel nuts

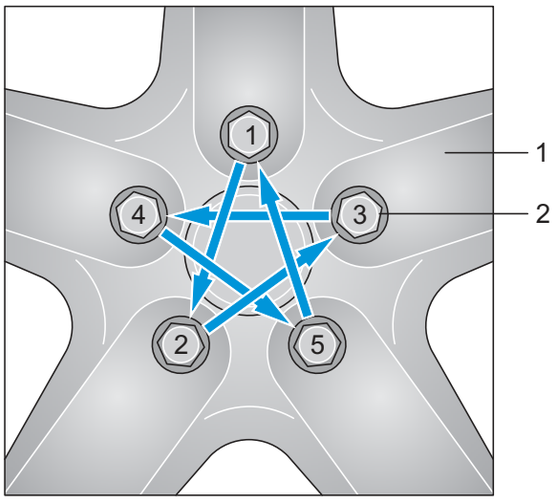


Figure 131 Tightening the wheel nuts

1 Rim
2 Wheel nuts or wheel bolts

➔ Tighten the wheel nuts or wheel bolts (Figure 131/2) in the sequence 1 - 2 - 3 - 4 - 5.

➔ Check the firm seating of all wheel nuts or wheel bolts again.

➔ Use a torque wrench for light-metal rims without steel bushings.
Please refer to the separate operating instructions of the chassis manufacturer for the tightening torques of the rims.

➔ After driving approx. 50 km, check the seating of the wheel nuts or wheel bolts.

21.2 Replacing lighting elements

Caution!

Damage to bulbs

➔ Never touch the new bulbs with your bare fingers. Always use a clean and lint-free cloth.

➔ Before starting to drive, check the function of all interior and exterior lighting equipment on the vehicle and replace defective lighting elements.

➔ Have a clean mat available for changing the lighting elements. This ensures that you will not lose any small parts.

21.2.1 Exterior lighting

For information on the vehicle's exterior lighting, please refer to the operating manual provided for the basic vehicle.

21.2.1.1 Replacing lighting elements - front

Vehicle with basic vehicle driver's cab:

➔ The required information can be found in the operating instructions of the base vehicle.

Fully integrated vehicles (e.g. Sonic):

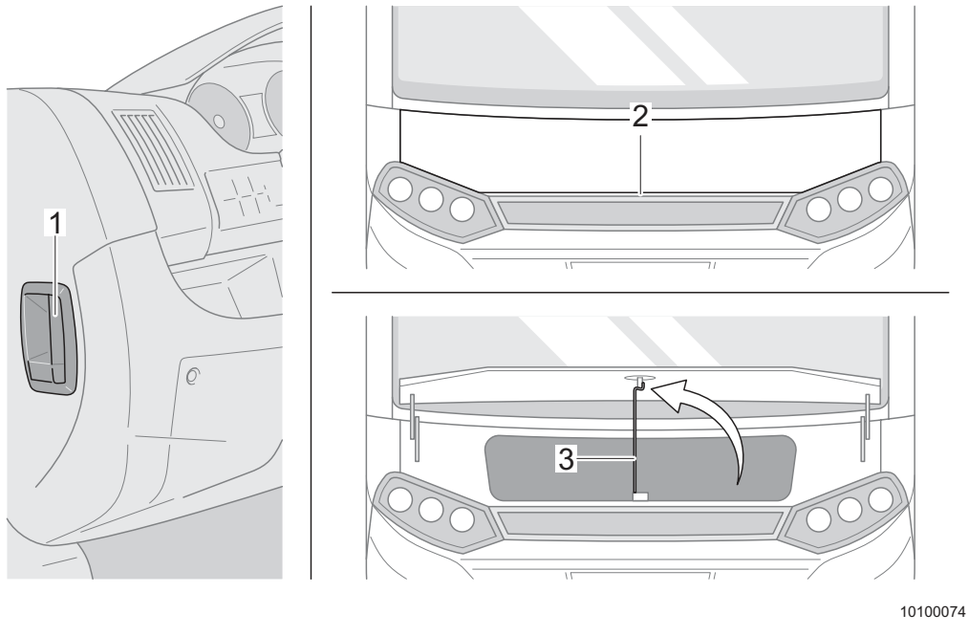


Figure 132 Opening the bonnet - fully integrated

1 Unlocking lever

2 Safety lock

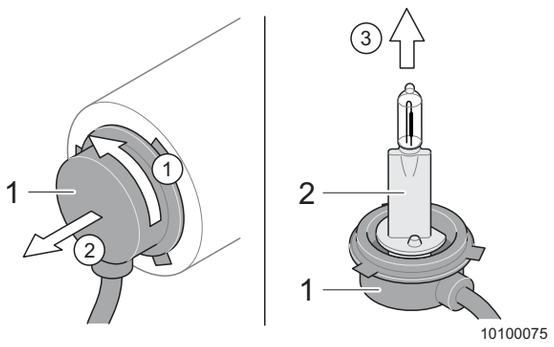
3 Support for bonnet

Opening the bonnet:

➔ Release the bonnet lock with the unlocking lever (Figure 132/1) in the driver's cab.

➔ Press the safety lock (Figure 132/2) in the middle of the bonnet, open the bonnet and secure with the support (Figure 132/3).

The rear side of the lighting elements can now be accessed from the engine compartment.



1 Lighting element holder
2 Lighting elements

Figure 133 Replacing the front lighting elements - fully integrated

Replacing lighting elements:

➔ Turn the lighting element holder (Figure 133/1) approx. 45° anticlockwise.

➔ Pull the lighting element holder (Figure 133/1) out to the rear.

➔ Use a cloth to hold and replace the lighting element (Figure 133/2).

Put the lighting element holder back in in the reverse sequence.

Front lighting - fully integrated vehicles	Lighting elements
Daytime lights	LED
Dipped headlights	H1 55 W
Headlights	H1 55 W
Sidelights	W5W
Direction indicator	PY21W
Contour light, white	LED

Tab. 13 Front lighting elements - fully integrated

21.2.1.2 Replacing lighting elements - sides

The side marker lights are LED lights on some models. Lamps should only be replaced in a workshop. Contact your ***ADRIA*** dealer in the case of defects.

Exchanging the contour light bulbs (red/white):

➔ Remove the contour light glass.

➔ The bulb sits in a bayonet socket. Pull the defective light bulb out of the socket.

➔ Check that the new light bulb works.

➔ Refit the contour light glass.

Lighting - sides	Lighting elements
Direction indicator	W16WF or LED
Contour lights (white or red/white)	W5W
Side marking light	LED
Awning light	G4 10W or LED

Tab. 14 Side lighting elements

21.2.1.3 Replacing lighting elements - rear

The rear lights are also LED lights on some models. It is not possible to replace individual elements. Contact your ***ADRIA*** dealer in the case of defects.

21.2.2 Interior Lighting

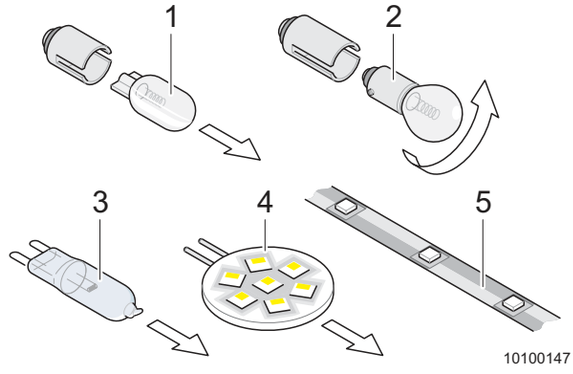


Figure 134 Interior lighting bulb types

1 Bulb with plug cap
2 Bulb with bayonet cap
3 Cylindrical bulbs G9
4 LED insert G4
5 LED strip light

Interior lighting	Lighting elements
Ceiling light, living area	LED-12 V-G4 1.0 W
Ceiling light, sleeping area	LED-12 V-G4 1.0 W
Lighting, roof hood	Halogen 12 V-G4 10 W
Reading lamp, living area	LED-12 V-G4 0.5 W
Reading lamp, sleeping area	LED-12 V-G4 1.0 W
Kitchen light	LED-12 V-G4 0.5 W
Lighting, bathroom unit	LED-12 V-G4 0.5 W
Lighting, wardrobe	C10W 12 V 10 W
Lighting, storage space	Halogen 12 V-G4 10 W
Lighting, panoramic windows	90 LED/M - 5000K

Tab. 15 Interior lighting elements

	Bulb type	Replacing
1	Bulb with plug cap	• Removing: pull the bulb out. • Fitting: push the bulb in the socket with light pressure.
2	Bulb with bayonet cap	• Removing: push the bulb down and turn it anticlockwise. • Fitting: insert the bulb in the socket and turn it clockwise.
3	Cylindrical bulbs with G9 cap	• Removing: pull the bulb out. • Fitting: push the bulb in the socket with light pressure.
4	LED insert with G4 plug connection	• Removing: Pull the LED insert out of the plug connection. • Fitting: Push the LED insert into the plug connection with light pressure.
5	LED strip light	• Visit an ***ADRIA*** service point.

Tab. 16 Replacing bulb types - interior

21.3 Water supply faults

Fault	Possible cause	Remedy
No water	Fresh water tank empty.	• Fill the fresh water tank.
	Fuse of water pump defective.	• Replace defective fuse.
	Water pump is switched off at the control panel.	• Switch the water pump on.
	Water pump defective.	• Have the water pump replaced in an authorised workshop.
Water leak in vehicle	Leak in water system.	• Identify and repair leak.

Tab. 17 Water supply faults

21.4 Toilet faults

Fault	Possible cause	Remedy
Toilet does not have flushing water	Fresh water tank empty.	• Top up the water.
Cassette leaking	Gasket damaged or foreign objects (toilet paper) in slider.	• Replace slider gasket. • Remove foreign objects (toilet paper).
No level indication	Float in the cassette jammed or blocked by toilet paper.	• Clean cassette float. Do not use high-pressure cleaner!
The pump runs, the toilet bowl is not emptied	Clogging in toilet bowl.	• Fill the toilet bowl with water. Allow clogging to soak for approx. 2 minutes and then flush several times in quick succession.
Toilet does not function	Fuse defective.	• Replace the fuse.

Tab. 18 Toilet faults

21.5 Alde Compact 3030 heater faults

Note!

If the measures listed do not lead to success, consult a specialist workshop.

Fault	Possible cause	Remedy
The boiler will not start with gas **(Gas Failure)**	Gas cylinder is empty.	• Replace the gas cylinder.
	Gas cylinder valve is closed.	• Open the gas cylinder valve.
	Quick-action stop valve on heater is closed.	• Open quick-action stop valve on heater.
	Outside temperature too low.	• Use propane gas for winter camping.
	Fuse of heater is defective.	• Insert a new fuse.
	12-V supply switched off.	• Switch on the 12-V supply.
	12V battery voltage is too low (< 11 V).	• Charge the living area battery.
	Flue gas hose between boiler and chimney is blocked.	• Flue gas hose between boiler and chimney needs unblocking. The flue gas hose is made up of an inner and an outer hose.
	Flue blocked.	• Unblock flue.
	Crash sensor on the Truma MonoControl has triggered.	• Reset the crash sensor.
Electric operation (230 V) not working satisfactorily	No mains voltage.	• Check the circuit breaker is switched on. • Check that the power output selected on the control unit is high enough.
	12 V supply switched off.	• Switch on the 12-V supply.
	12 V battery voltage is too low (< 11 V).	• Charge the living area battery.

Tab. 19 Alde Compact 3030 heating fault – part 1

Fault	Possible cause	Remedy
Poor or no heat output	Air in the heating system.	• Bleed the heating system.
	Circulation pump is not working.	• Consult an authorised workshop.
Error messages are shown on the control panel. The LED on the On/Off button turns red	Various	• Read the instruction manual to find out how to rectify faults.

Tab. 20 Alde Compact 3030 heating fault – part 2

21.6 Truma Combi and Truma Combi E and Truma Diesel heater faults

Note!

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.

If the measures listed do not lead to success, consult a specialist workshop.

21.7 Truma FrostControl faults

Fault	Possible cause	Remedy
Truma FrostControl does not shut	Temperature on the Truma FrostControl is below +3 °C.	• Switch on heating. If the heater is not in operation, the Truma FrostControl can only be closed when the ambient temperature is above +3 °C.
	Rotary switch of the Truma FrostControl not set to "Operation".	• Turn the rotary switch of the Truma FrostControl to "Operation". Now press the push button on the Truma FrostControl until it engages.

Tab. 21 Truma FrostControl

21.8 Gas system faults

Fault	Possible cause	Measure
Gas smell, high gas consumption	Leak in gas system.	• Immediately put the gas system out of service. • Close the valve on the gas cylinder! • Avoid any type of ignition spark and open light. • Ventilate the vehicle well. • Repair by authorised workshop.
No gas	Gas cylinder is empty.	• Replace the gas cylinder.
	Gas cylinder valve is closed.	• Open the gas cylinder valve.
	The MonoControl CS has switched off after the gas system has not been used for a longer period of time while the gas cylinders were closed.	• Putting the MonoControl CS into operation.
	Gas pressure regulator frozen.	• Use regulator de-icing equipment (EisEx).
	Quick-action stop valve closed.	• Open quick-action stop valve.
	Faulty appliance.	• Repair by authorised workshop.
	Outside temperature too low.	• Use propane gas for winter camping.
Flame appearance on appliance not normal	Gas pressure regulator defective.	• Consult an authorised workshop.

Tab. 22 Gas system faults

21.9 Gas cooker faults

Fault	Possible cause	Remedy
No gas	See Chapter 21.8.	
Flame extinguishes in the "small flame" position	Flame failure device is not adjusted correctly.	• Adjustment exclusively by authorised workshop.
Flame failure device does not react	Ignition detector defective.	• Consult an authorised workshop.
Flame appearance on appliance not normal	Gas pressure regulator defective.	• Consult an authorised workshop.

Tab. 23 Gas cooker faults

21.10 Control panel faults

Fault	Possible cause	Remedy
12-V supply does not function	12-V main switch switched off.	• Switch on 12-V main switch
	Fuse defective.	• Contact customer service.
12-V control indicator (green) is not on	12 V supply switched off.	• Switch on the 12-V supply.
System cannot be switched on	Living area battery is not charged or insufficiently charged.	• Charge the living area battery.
	Fuse defective.	• Contact customer service.
No voltage is supplied by the living area battery	The living area battery is discharged.	• Charge living area battery immediately! **Complete discharging damages the living area battery!**
	Discharge by appliances on the vehicle.	• Charge living area battery for longer stationary periods.
The "mains control" symbol is not shown although the 230-V mains supply is connected	The mains connection has no voltage.	• Check the mains connection (e.g. camping site).
	Circuit breaker for 12-V power supply unit has triggered or is switched off.	• Reset or switch on the circuit breaker.

Tab. 24 Control panel faults

21.11 Measured values for living area battery voltage

Note!

The values apply for running operation and not for measuring the open-circuit voltage.

Battery voltage	Battery operation	Vehicle operation	Mains operation
Complete discharging to less than 11.5 V is imminent	Appliances switched off: Battery empty.	No charge from generator.	No charge from power supply (EBL .../ C(S)V ...)
	Many appliances switched on. Battery overload.	12-V on-board electrical system overload.	12-V on-board electrical system overload.
12.2 V to 12.7 V	Normal range.	No charge from generator (if voltage does not exceed this range for several hours).	No charge from power supply (EBL .../ C(S)V ....) (if voltage does not exceed this range for several hours).
		12-V on-board electrical system (if voltage does not exceed this range for several hours).	12-V on-board electrical system (if voltage does not exceed this range for several hours).
13.5 V	Only occurs during charging (if solar controller available) or briefly after charging.	Battery is being charged.	Battery is being charged.

Tab. 25 Measured values for living area battery voltage

21.12 Power supply faults

Fault	Possible cause	Remedy
Ground-fault circuit breaker triggered	Fault in 230-V cables of vehicle.	• Contact customer service.
	Fault in an electrical appliance.	• Disconnect all electrical consumers until the ground-fault circuit breaker no longer triggers. • Have defective appliances repaired by a qualified electrician.
Living area battery is not charged in 230-V mode	No mains voltage.	• Switch on the circuit breaker in the vehicle. • Have the mains voltage checked.
	PSU defective.	• Contact customer service.
Living area battery is overcharged in 230-V operation	PSU defective.	• Contact customer service.
Living area battery is not charged in drive operation	Too many connected appliances.	• Switch off the appliances, if possible.
Living area battery is overcharged in drive operation	Generator is defective.	• Have the generator checked.
	Regulator defective.	• Have the regulator checked.
Refrigerator does not operate in drive operation	No voltage applied to refrigerator.	• Have the fuse and cables checked.
	PSU defective.	• Contact customer service.
	Refrigerator defective.	• Have the refrigerator checked.
12-V supply in the living area does not function	The 12-V main switch for the living area battery is switched off.	• Switch the 12 V main switch for the living area battery on.
	Fuse or cables defective.	• Have the fuse and cables checked.
	PSU defective.	• Contact customer service.
	System put out of service.	• Put the system into service.

Tab. 26 Power supply faults

21.13 Refrigerator/freezer compartment faults

Fault	Possible cause	Remedy
No gas operation	See Chapter 21.8.	
	Energy selector switch on refrigerator in false position.	• Bring the power selector switch on refrigerator to "Gas mode" or "Automatic mode" position.
	Air in gas pipe.	• Switch the appliance off and start again. Repeat this 3 or 4 times.
No 230-V operation	Energy selector switch on refrigerator in false position.	• Switch power selector switch on refrigerator to "230-V mode".
	Vehicle not connected to mains supply.	• Connect vehicle to the mains.
	On-board fuse defective.	• Insert a new fuse.
No 12-V operation	Energy selector switch on refrigerator in false position.	• Switch power selector switch on refrigerator to "12-V mode".
	On-board fuse defective.	• Insert a new fuse.
	Battery is discharged.	• Check and charge the battery.
	Ignition is not switched on.	• Start the engine.
Cooling function is not sufficient	Door not closed properly.	• Close the door. • Have the door adjusted.
	Ventilation of the cooling unit is not sufficient.	• Check the refrigerator grilles are not covered.
	Thermostat setting too low.	• Increase the setting.
	Too much ice on vaporiser.	• Check the refrigerator door closes properly.
	Too much warm food placed in the refrigerator at the same time.	• Allow food to cool first.
	Appliance not yet long enough in operation.	• Check the cooling effect after some hours.
"Batteries empty" icon flashing despite new batteries	Use rechargeable batteries.	• Use new batteries (type 1.5 V AA/LR6).

Tab. 27 Refrigerator/freezer compartment faults

22 Technical data

Note!

- ➔ For the technical data, the statements in the registration certificate part I are binding.
- ➔ Modifications of the original equipment of the vehicle ex factory can affect road safety and driving behaviour.
- ➔ Accessories not approved by ***ADRIA*** for installation, attachment or conversion can cause damage to the vehicle and affect driving behaviour.
- ➔ ***ADRIA*** assumes no liability for damage caused by unapproved accessories or by unauthorised modifications on the vehicle.
- ➔ The dimension and weight information is within possible tolerances ± 5%.

22.1 Models

ADRIA vehicles are grouped into the following models:

- Alcove models (driver's cab of basic vehicle can be seen, bodywork has a bed in an alcove above the driver's cab)
- Hybrid models (partially integrated vehicle with front lifting bed)
- Partially integrated models (driver's cab of basic vehicle can be seen, bodywork does not have a bed above the driver's cab)
- Fully integrated models (driver's cab integrated in the bodywork)

Model identification:

- A - Alcove models
- M - Crossover models
- S - Semi-integrated models
- I - Fully integrated models

22.2 Tyres / tyre pressure

Warning!

Risk of injury and severe damage to the vehicle

- ➔ Different tyre pressures may be necessary when using winter tyres. For more detailed information, please refer to the operating instructions of the base vehicle.

For the tyre size, please see the vehicle documents or look at the tyres of your vehicle.

The specifications are applicable for cold tyres under load. The pressure should be approx. 0.3 bar higher for warm tyres.

The tyre pressures specified are approximate values. Refer to the separate operating instructions of the base vehicle for exact specifications.

Base vehicle	Tyre size	Tyre pressure, front [bar]	Tyre pressure, rear [bar]
Fiat Ducato	215/70 R 15 C	4.1	4.5
	215/70 R 15 CP	5.0	5.5
	215/75 R 16 C	4.5	5.0
	225/70 R 15 C	4.1	4.5
	225/70 R 15 C M+S	4.3	4.7
	225/75 R 16 C	4.5	5.0
	225/75 R 16 C M+S	5.2	5.2
	225/75 R 16 CP	5.5	5.5
	225/75 R 16 CP 118	5.5	6.0
Mercedes-Benz Sprinter	225/75 R 16 C	3.3	4.3
	235/65 R 16 C	3.6	5.0
	235/60 R 17 C	3.5	4.5
Renault Master	225/65 R 16 CP	4.0	4.8

Tab. 28 Tyres / tyre pressure

22.3 Payload/weight

Caution!

Danger of overloading

The driving behaviour of an overloaded vehicle changes drastically. It can get out of control during the journey.

If the vehicle is overloaded, the insurance cover and the warranty provided by the manufacturer become void.

➔ Do not exceed the maximum gross vehicle weight (see vehicle documents).

Note!

➔ Load the vehicle properly (Chapter 5.1).

➔ Weigh the vehicle before starting the journey (e.g. on public vehicle scales).

22.3.1 Determining the payload

The payload is calculated according to the following formula:

- Maximum gross vehicle weight - (minus) unladen weight / basic equipment = weight of payload

Regulation EU Nr 2021/535/EC defines masses and dimensions and payload calculations and tolerances allowed.

22.3.1.1 Maximum gross vehicle weight

See the registration certificate, part I or part II, for the gross weight rating.

22.3.1.2 Mass of the vehicle in running order

- The mass of the empty vehicle, including tyre mobility system and tools
- Driver weight (75 kg)
- Fuel tank (90% capacity)
- One full LPG cylinder (11 kg gas + 6 kg container = 17 kg)
- Fresh water tank (20 l = 20 kg)

Note!

➔ Weights quoted are for standard vehicles only. Please verify that you have considered the masses of all items you intend to carry in the motorhome (passengers, optional equipment, indispensable equipment and personal effects such as clothing, food, pets, bicycles, etc.).

➔ The MRO figure quoted is representative of a number of similar specification models weighed on our fully calibrated axle weighbridge. Because of materials and construction techniques used in the motorhomes assembly, all weights quoted by us are subject to the tolerances allowed in Regulation (EU) 2021/535 (+/- 5%).

22.3.1.3 Payload

The payload consists of:

Additional equipment

All objects offered in addition to the standard equipment.

The weights of the additional equipment can be found in Chapter 22.3.2, e.g.

- Optional equipment offered by Adria
- Special equipment from the manufacturer of the basic vehicle
- Special accessories from the dealer

Personal equipment

- Pets on board
- Shoes and clothes
- Toiletry and sanitary articles
- Kitchen accessories and foodstuff
- Leisure time and sports articles, toys
- Audio, TV and video equipment and accessories
- etc.

22.3.2 Weight of additional equipment and accessories

The additional equipment packages and accessories of the vehicle are listed with their weights here. The values apply if not already included in the standard equipment of the vehicle. All weight information is “approximate information”.

	Additional equipment / accessories	Weight (approx.)	✓
Base vehicle	Fiat 130/150 Multijet instead of 115 Multijet	25 kg	
	Fiat 180 Multijet instead of 115 Multijet	75 kg	
	Fiat Maxi Chassis	40 kg	
	Mercedes Benz 316CDI instead of 313CDI	15 kg	
	Mercedes Benz 319CDI instead of 313CDI	56 kg	
	Mercedes Benz 3.88-t-Chassis	23 kg	
	Mercedes Benz 4.2-t-Chassis	50 kg	
Equipment	Waste water hose	2 kg	
	Waste water tank heated	1 kg	
	Passenger airbag	3 kg	
	Alarm system, living area	2 kg	
	Alarm system, driver's cab	1 kg	
	ALC level control system	19 kg	
	Trailer system with electric connection	25-40 kg	
	Instrument panel refinement	1 kg	
	ASR / ESP	4 kg	
	Automated transmission	6-17 kg	
	Automatic transmission	28 kg	
	Rear view mirrors, painted	1 kg	
	Rear view mirrors, electrically adjustable and heatable	2 kg	
	Wider bed	2 kg	
	CD radio	1-5 kg	
	Roof railing	8 kg	
	Deco set	2 kg	
	Auxiliary diesel heating	6-10 kg	
	Spare wheel	32 kg	
	Bike holder	10-20 kg	
	Fire extinguisher	2 kg	
	Flyscreen blind in living area door	4 kg	
	Combi 6 heater (instead of Combi 4)	1 kg	

	Additional equipment / accessories	Weight (approx.)	✓
	Lifting bed, electrical operation	2 kg	
	Lifting bed complete, with electrical operation	80 kg	
	Air-conditioning system, driver's cab	18-20 kg	
	Corner steadies, rear	6 kg	
	Curve lighting	3 kg	
	L-dinette	19 kg	
	Light-metal rims (4 rims, instead of steel rims)	10 kg	
	Reinforced generator	2 kg	
	Awning	20-30 kg	
	Mattress cover for fixed beds	4 kg	
	Metallic paint finish	2 kg	
	Navigation system	2-5 kg	
	Fog lamp	4 kg	
	Panorama roof window, front	5 kg	
	Leather upholstery	4 kg	
	Radio pre-installation, driver's cab	2 kg	
	Smoker package	2 kg	
	Rear-view Camera	2 kg	
	Particle filter	10 kg	
	Headlamp cleaning unit	1 kg	
	Mudflaps, front and rear	4 kg	
	Seat base cover, driver's cab	1 kg	
	Sunvisors, driver's cab	3 kg	
	Stop & Start automatic	1-2 kg	
	Daytime lights	2 kg	
	Cruise control	1 kg	
	Carpet, driver's cab + dinette	5 kg	
	TFT TV-holder	3-5 kg	
	TV + SAT equipment	15-40 kg	
	Heat insulation, driver's cab	2 kg	
	Heat exchanger, Motor-Alde	3-5 kg	
	Winter curtain, driver's cab	4 kg	
	Xenon headlamps	1 kg	
	Xenon headlamps with cleaning system	3 kg	

	Additional equipment / accessories	Weight (approx.)	✓
	Additional air suspension (rear axle)	10-45 kg	
	120-litre diesel tank (instead of 90 litres)	30 kg	
	60-litre diesel tank (instead of 90 litres)	-24 kg	
	Total weight of built-in additional equipment		

Tab. 29 Weight of additional equipment and accessories

22.3.3 Weights of personal equipment and accessories

Personal equipment / accessories	Weight (approx.)	✓
Overall weight of personal equipment		

Tab. 30 Weights of personal equipment

23 Checklists

Note!

These lists also include optional equipment and personal equipment not included in the standard vehicle equipment.

23.1 Checklist, general

Motorhome checklist	✓
Motorhome general inspection and gas inspection carried out (Chapter 2.4.1)	
Gas inspection carried out (Chapter 2.4.2)	
Maintenance and inspection work carried out (Chapter 20)	
Use-by date for gas regulator and gas hose checked	
Batteries charged	
Oil level, coolant level and windscreen wiper water level checked	
Wheel bolts, wheel nuts tightened correctly	
Tyre pressure checked (Chapter 22.2), tread depth checked	
Spare wheel tyre pressure or use-by date of tyre mobility system checked	
Lighting checked	
Nationality plate attached (when required in destination country)	
Emergency equipment available (warning triangle and first-aid kit, possibly flashing hazard warning light and warning vests in the towing vehicle)	
Fire extinguisher present and tested	
Tools: Gloves, reserve fuel canister (if allowed in the country being visited), jumper cable, tow rope, tow bar, vehicle jack, wheel chocks, wheel nut spanner, screwdriver, open-ended spanner, hammer, pliers, circuit tester, terminal clamps, fabric tape, folding spade, engine oil, tension belts	
Spare parts: Fuses, spare lights, hose clamps, hose, spare immersion pump, wire	
Snow shovel, snow broom, de-icing spray, ice-scraper, squeegee	
Snow chains, traction aids	
Bubble level, drive-on chocks	
CEE cable reel, extension cable, adapter cable	
Earth contact-multiple socket available	
Freshwater tank cleaned, disinfected and drain valve closed	
Freshwater tank filled	

Motorhome checklist	✓
Water hose, canister, watering can	
Water disinfectant, toilet cassette, etc.	
Waste water tank emptied and drain valve closed	
Cassette emptied and with fresh disinfectant	
Additive for cassette available	
Gas cylinders, filled	
Gas cylinders secured safely in gas cylinder compartment (Chapter 11.2), screw caps and protective covers available for all cylinders	
Quick-action stop valve for cooker, oven closed (Chapter 11.7)	
Gas adapters (filler set, cylinder set), MonoControl CS high-pressure hoses available	
Cranks and support plates for corner steadies	
Crank for awning	
Additional cushion for making the bed	
All ladders safely stowed	
Antenna retracted and secured	
All liquids stored in leak-proof containers	
All objects in open storage areas stowed securely	
Refrigerator, freezer compartment and oven doors latched securely	
Sink board safely stowed	
Cabinets and drawers latched securely	
Bathroom door latched securely	
All beds and bed extensions latched securely	
All tables safely stowed	
All windows and roof hoods closed securely	
Awning light switched off	
Awning retracted and latched securely	
230 V connecting cable removed from external socket	
Corner steadies retracted	
Drive-on chocks, wheel chocks removed	

Motorhome checklist	✓
Snow and ice cleared from roof	
Roof loads attached securely, roof boxes locked securely	
Rear carrier loaded securely, warning sign attached securely	
Additional loads stored securely and prevented from shifting	
Vehicle loaded properly (Chapter 5.1)	
Permissible gross weight and gross axle weight rating of the vehicle not exceeded (see registration documents)	
Entrance step retracted	
All outer doors and flaps securely latched and locked	
Child car seats attached securely	
Headlights height setting adjusted	
Rear view mirrors correctly adjusted	
Cab seats set to the right position and locked into position	
Blackout blind in the driver's cab fully open and locked	

Tab. 31 General motorhome checklist

23.2 Driver and passengers checklist

Driver and passengers checklist	✓
Identity cards, passport, visa (check validity!)	
Health insurance card, EU health insurance card, health insurance documents for abroad	
Travel health insurance documents	
Vaccination cards (vaccinations up to date?), allergy passes, emergency passes	
Required travel documents for all animals	
Driving licence, international driving licence	
Vehicle documents, green insurance card	
General inspection certificate, emissions test certificate, official gas inspection certificate	
Parking disc	
Operating manuals	
Directory of authorised workshops for basic vehicle	
Spare vehicle key	
Spare glasses, sunglasses	
Window cloth	
Automobile club card, breakdown insurance package for coverage abroad	
Accident set with European accident report	
Apartment or house key	
Cash, foreign currencies	
Travel cheques	
EC card, credit card	
Toll stickers, toll tickets, ferry tickets, petrol coupons	
Road atlas, road maps	
Navigation equipment, navigation CD or DVD	
Travel guides, camping and parking guide	
Camping site booking confirmation	
Phrase books, dictionaries	
Travel provisions	
Address book	
Mobile phone with charger (12 V/230 V)	

Tab. 32 Driver and passengers checklist

23.3 Living and sleeping area checklist

Equipment	✓	Equipment	✓
Copies of: Identity cards, passports, visa		Copies of: Vaccination cards, allergy passes, emergency passes	
Copies of: Driving licence, inter-national driving licence		Copies of: Vehicle documents, green insurance card	
Telephone number of local bank (if the EC card gets stolen)		Telephone number of credit card company (if the credit card gets stolen)	
Clothes, shoes		Pyjamas	
Rain wear, winter clothes (hat, scarf, gloves, boots...)		Swimwear, bathrobe and slippers, diving goggles, flippers	
Sports clothes, jogging gear		Ski clothes	
Umbrella		Shoe polish	
Pillows, blankets		(Fitted) sheets, bed linens	
Coat hangers		Clothes brush, lint roller	
Camping table, camping chairs		Tent, awning	
Table cloths, place mats, napkins, bibs		Insect repellent candles / insect repellent lights, fly swatter	
Iron, sewing kit, scissors		Pocket knife, multitool	
Pocket light, candles		Rope, cord	
Barbecue, charcoal, charcoal lighters		Batteries	
Pencils and paper		Alarm clock	
Alarm clock Books, CDs, DVDs		Radio	
Sunglasses, sun hat, sun cap		Audio equipment, photo equipment, video equipment	
Rucksack		Games, painting accessories, cuddly toys	
Binoculars		Dog collar, dog lead	
Bicycles, tricycles, scooters		Bicycle locks with keys, repair kit	
Air mattress, pump or compressor		Leisure equipment	
Impregnating agent			

Tab. 33 Living area checklist

23.4 Kitchen checklist

Equipment	✓	Equipment	✓
Food		Bottle stopper	
Baby food		Glasses, mugs, cups	
Carving knife, kitchen knife, bread knife		Plates (large/small), soup plates, soup bowls	
Chopping board		Bowls (large/small)	
Gas lighters, matches		Bread basket	
Scissors, can opener		Cutlery, ladles, salad servers	
Pots, pans		Airtight storage boxes	
Pot coasters		Aluminium foil, cling film, freezer bags	
Pot holders		Coolbag	
Measuring cup		Kitchen towels	
Baking paper		Basin/box for dirty crockery	
Cooking spoons, spatula, egg whisk		Coffee machine, filter paper, kettle	
Spices		Dishwashing brush, sponge, cloth	
Pasta strainer, salad strainer		Tea towels	
Dishwashing detergent		Cleaner	
Tea pot, coffee pot, Thermos flask		Tin opener, bottle opener, corkscrew	
Bottle warmer		Broom, shovel	
Egg boiler, egg cups		Dust bin, rubbish bag	
Toaster		Grill utensils	
Floor cloth, bucket		Dog bowl	

Tab. 34 Kitchen equipment checklist

23.5 Bathroom/sanitary equipment checklist

Equipment	✓	Equipment	✓
Toilet bag		Glasses, glasses cleaners	
Toothbrush, toothpaste, beakers		Contact lenses, cleaner, clear water	
Shaver, razor blades / shaving brush / shaving foam		Body lotion, face cream, hand cream	
Soap		Toilet brush	
Shower gel, shampoo		Wet wipes	
Flannels		Nappies, changing mat	
Towels, bathing towels, shower towels		Tampons, sanitary towels	
Toilet paper (rapid dissolving)		Contraceptives	
Comb, brush, hair bands, hair slides		Detergent, clotheslines, clothes pegs	
Hair dryer, curling tongs		Tissues	
Mousse, hair spray		Disinfectant	
Deodorant, fragrance		Sun protection products, after sun	
Cosmetic products, lip balm		Insect repellent lotion, insect repellent spray	
Cotton swabs, cotton pads		First-aid kit and medicines with instruction leaflets	
Nail scissors, nail file		Laundry bag	
Tweezers		Earplugs	

Tab. 35 Bathroom / sanitary equipment checklist

23.6 Personal checklist

Please copy and complete.

Route:	Date:

Personal checklist	✓

Tab. 36 Personal checklist

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