



MANUAL (GB)

Version 10/2018

VANTANA ONTOUR | VANTANA DE LUXE | VANTANA PREMIUM

**Hobby**  
BUILT FOR LIFE



Dear Camper,

Congratulations on the purchase of your new HOBBY van. The trust you have placed in us is both an incentive and an obligation to continuously implement new ideas, technical innovations and fine touches to make our vehicles even better.

Please read this operating manual carefully, even if you've been driving a mobile home or van for a longer period of time. Correct use of all technical details will increase your driving pleasure and assist in conserving the value of your van.

Take advantage of your authorised dealer's experience and technical knowledge - we recommend speaking to him in detail before taking your first trip with your HOBBY van.

We wish you and your fellow travellers many enjoyable trips and hope you will always have a safe journey with your new HOBBY van.

Your

HOBBY – Wohnwagenwerk

Ing. Harald Striewski GmbH

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# Chapter 1: Introduction

## 1.1 General information

Our van are continuously being updated and for this reason we must reserve the right to make changes to the equipment, shape and technology.

Certain kinds of accessories are also described in this user manual that are not part of the standard scope of delivery.

For this reason, no claims may be asserted against HOBBY based on the contents of this user manual. Those accessories that are available at the time of going to print are described here. They have been applied on a par for all floor plans.

Please note that it was not possible to describe all of the individual variations here. If you have any special questions concerning accessories or the technology within the vehicle, your dealer will be happy to answer them.

Your HOBBY van has been built in accordance with the latest technology and approved safety regulations. Despite all precautionary measures, however, it is possible that passengers

may be hurt or the van damaged if the safety instructions in this user manual and the warning stickers placed throughout the van are not observed.



We would explicitly like to point out that we do not accept any liability for damages or malfunctions that arise because these operating instructions have been ignored.

- Please use the van only when it is technically in top
- Any defects that affect the safety of passengers or the van should be remedied immediately by trained personnel.
- The brake system and the gas system should only be checked and repaired by an authorised workshop.
- Please ensure that all of the deadlines for checking equipment and inspections are met.

## Before making your first journey

Please do not consider this manual to be just a means of reference, but familiarize yourself thoroughly with it before making your first journey.

**Fill out the guarantee cards in the different manuals for the installed equipment and fittings and send them to the manufacturers. This will ensure guarantee claims for any of the equipment.**



In accordance with guarantee conditions, HOBBY's dealer will give you a 5-year guarantee on the water tightness of the van. Your dealer will give you a guarantee booklet, "5 Years' "Water ingress warranty" when you pick up your vehicle.



**Annual leak checks are not free of charge.** If a consistency test has not been carried out, you will forfeit any claims for a 5-year guarantee on consistency.

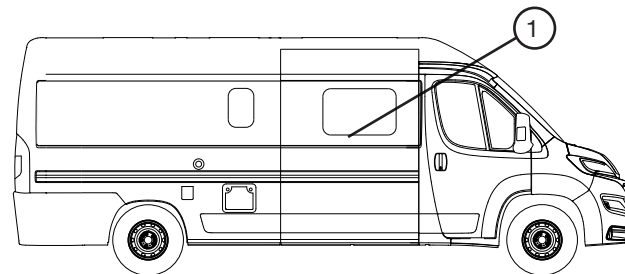
## 1.2 Key to using these operating instructions

This manual explains the van in the following manner:

### Texts and illustrations

Texts that refer to illustrations are found directly below the illustrations.

Details in illustrations (here: Habitation door) have been given item numbers .



Indicating details with the help of position numbers

### Lists

Lists are given in the form of key words and shown as bullet points using "–".

## Operating instructions

Operating instructions are also given in the form of key words beginning with the symbol “•”.

## Notes



Notes point out important details that ensure your van and its fittings will function perfectly. Please remember that there may be some differences in description to the various kinds of equipment that can be supplied.

## Warnings



Warnings point out dangers which, if they are not followed, could cause damage to equipment and/or injury to persons.

## Environmental Tips



Environmental tips give you possibilities for lessening the impact on the environment.

## Optional Extras

You have selected a van that is equipped to taste.

This user manual describes all of the models and equipment offered within the same season. Therefore, it may include equipment that you have not selected.

Differences and, thus, all of the optional extras are marked with an asterisk „\*“.

For technical reasons, optional extras cannot always be installed in all models. Should you have any questions, please speak to your Hobby dealer.



Should there be any equipment or a model that is not described in this user manual, please note the enclosed additional operating instructions.

## Relevance of This Manual

The high level of quality and security for vans is ensured by means of continuous improvements and development. In very rare cases, there may be a difference between the description and the vehicle itself.

## Chapter 2: Safety

### 2.1 Intended use

This van has been designed as a mobile travel accommodation for private, not commercial use. This is a recreational vehicle that is fit for habitation. It offers accommodation that can be used temporarily or seasonally and which meets the requirements for the construction and use of the vehicle on the road. It is not intended for permanent residence. Furthermore, no more than the number of people for which this van has been designed may spend the night in the vehicle. When the van is on the road, it may only be used in accordance with road traffic regulations and national vehicle safety standards.

This van may not be used for the commercial transport of people/animals and/or goods. On public roads, the van may only be used for carrying personal equipment. Transporting unsecured loads and/or packages is forbidden.

Each person travelling in the van must sit on a seat that is equipped with a seatbelt and wear the seatbelt whenever the vehicle is moving. The number of people travelling in the van may not exceed the number of seats equipped with a seatbelt. Please ensure that the technically permissible maximum weight of the van and the permitted axle load(s) per axle are not exceeded.

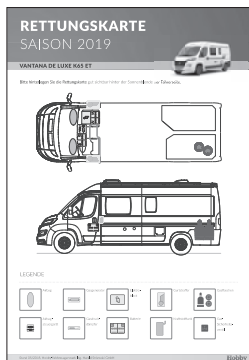
No use of the van other than that described here is permitted; any other use is regarded as contrary to the intended use.

### 2.2 General information

- The van may only be driven on public roads by someone with a valid driving licence category for such vehicles.
- Operating and user instructions for built-in equipment (refrigerator, heating, cooker, etc.) as well as for the basic vehicle must be observed at all times.
- If accessories or optional extras have been fitted, this may change the measurements, weight and road performance of the van. Some accessories that are fitted after purchase of the vehicle must be entered in the registration document.
- Use only tyres and rims that have been approved for your van. Information on tyre and rim sizes can be found in the user manual or in **Chapter 14.4 Tyres and rims**.



Warnings and information labels are attached both inside and outside the vehicle. These are meant for your safety and must not be removed.



Example of a safety information sheet for the vantana

## Safety information sheets

The safety sheet for the van can be found behind the drivers side sun visor. Should there be an accident, the emergency services can obtain all of the important information for this specific model from the safety sheet.



Treat the safety sheet with care; do not make it illegible and always store it in the designated place in the sun visor.

## 2.3 Fire protection

### Precautions against fire

- Never leave children and vulnerable people alone in the vehicle.
- Keep inflammable materials away from all heating and cooking devices.
- Any changes to the electric system, gas system or built-in devices may only be carried out by an authorised person.
- Keep an ABC dry powder fire extinguisher by the entrance door.
- Ensure that everyone is familiar with the operating instructions on the fire extinguisher.
- Store a fire blanket near the cooker.
- Do not block any escape routes.
- Familiarise yourself with all safety measures for the vehicle and camp site.

### Fighting fire

- Immediately evacuate all passengers.
- Close the main stop valve on the gas bottle and the individual gas taps for any gas appliances installed.
- Gas bottles that cannot be removed should be cooled with water.
- Turn off the electric supply.

- Sound the alarm and call the fire department.
- Only fight the fire yourself if you can do so without risk.



The initial use of dry powder fire extinguishers is only recommended if it is likely that turning off the valve on the gas bottle stop the leak, or if the bottle can be removed quickly.

## 2.4 Equipment

### 2.4.1 Emergency equipment

To be prepared in case of an emergency, you should always carry the three emergency devices on board and familiarize yourself with them.

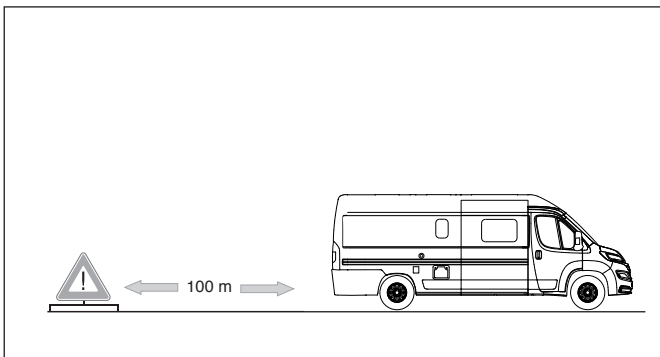
#### First-aid kit

The first-aid kit should always be at hand and have a fixed position in your van. Any objects removed from the first-aid kit should be replaced immediately. Expiry dates should be checked regularly.

#### High visibility jacket\*

Please refer to the British regulations for carrying and wearing a high-visibility vest with white retro-reflective stripes in accordance with EN 471 whenever you step outside the vehicle on roads outside built-up areas or on the hard shoulder.

- come to a stop outside city limits on an obscure rural road because of an accident or breakdown, if the view is poor due to bad weather, in twilight or darkness, or
- when it must be secured by means of a warning triangle on the hard shoulder of the motorway because of an accident or breakdown.



**Minimum distance between warning triangle and van**

### Warning triangle

The warning triangle should also always be at hand and have a fixed position in your van, preferably together with the first-aid kit.

#### In an emergency

- Set up the warning triangle at least 100 m ahead of the danger zone!



Please observe the national regulations of the countries you are driving through with regard to carrying and wearing emergency equipment.



**Tool box**

### 2.4.2 Vehicle tool kit

Each vehicle comes with individual basic equipment including a vehicle tool kit and accessories. The toolbox is included separately in the vehicle. Upon delivery, it is located in the rear under the bed.

## 2.5 Before driving

### 2.5.1 What to observe before your first journey

#### Vehicle registration (in Germany)

Every vehicle that drives on public roads must be registered.

This also applies to your new van. Apply for registration at your local Driver and Vehicle Licensing Agency.

The following documents are required to initiate the registration process:

- Motor Vehicle Registration Certificate Part II and/or Certificate of Conformity (CoC)
- Electronic Insurance Certificate/eIC Number
- personal identification or proof of residence
- possibly, power of attorney to have someone else register the vehicle.
- if applicable: direct debit mandate for taxes

#### General inspection (in Germany)

In common with passenger cars new vans with a permissible total weight up to 3.5 tonnes do not have to undergo a MOT (German equivalent) for the first three years after initial registration.

The MOT (German equivalent) can be carried out by the German Technical Surveyance Association (TÜV), the German Engine Vehicle Surveyance Association (DEKRA) or an officially approved expert.



Any changes made to the vehicle that underlie German Road Traffic Licensing Regulations must be officially authorised!

Please inform yourself abroad about any national regulations that may apply with regard to registration and general inspection of your van.

If you have any further questions or difficulties, your authorised Hobby dealer will always be available to assist you!



- **Use a torque wrench to check the wheel nuts after driving the first 50 miles with your motorhome.**
- **Switch off the gas-operated built-in appliances before refuelling the vehicle.**



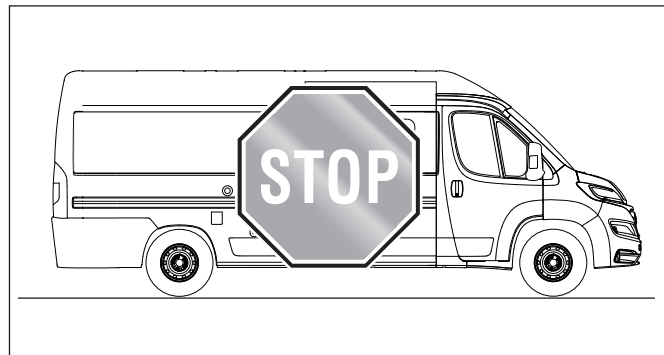
## 2.5.2 Before each journey

### Road safety

- Before driving, check that the signalling and lighting systems (switch on battery circuit breaker), steering and brakes function correctly.
- If the vehicle has been standing for a longer period of time (approx. 10 months) have an authorised workshop check the brake system and the gas system.
- Set up (re - position) the vehicle's wing mirror.
- Open the blinds on the front and side windows fully and secure them. Should there be a thermal curtain\*, remove and store it.
- In winter, the roof must be cleared of snow and ice before driving.
- Regularly check the tyre pressure before driving. Incorrect tyre pressures can cause excessive wear, damage to the tyres or even lead to a puncture or blow out (**see also Chapter 14.5**).
- Check liquids such as oil, coolant, brake fluid and wind-screen washer fluid and top them up if necessary.



Only start driving when your van fulfils all of the conditions for roadworthiness.



#### Prepare the vehicle before driving!

As the owner / driver of the vehicle, you are responsible for the state of the vehicle. Please observe the following points:

### Battery



- Fully charge the batteries before each journey. Please refer to the section on "Ancillary battery" in **Chapter 7**.
- Switch on battery circuit breaker.

### Driver's cab

#### Do not forget the following

- Position the drivers seat correctly to enable you to drive safely.

## Interior

Some preparations must also be carried out inside the van.

### Preparing the interior

- Sort loose objects and stow them in the compartments.
- Store heavy and / or large objects (e.g. TV, boxes of wine or cases of beer) safely before you start your journey, securing them to prevent them from moving around (**see also Chapter 3.3 “Loading”**).
- If necessary switch the refrigerator to 12 V operation (in the case of an absorber refrigerator<sup>\*</sup>).
- Ensure that no liquids, including those in the refrigerator, will leak.
- Secure accelerator cylinders.
- Close all of the emergency shutoff valves on the individual gas devices, with the exception of the stop valve for the heating, if the vehicle has been equipped with a gas pressure regulator for use while driving (e.g. Control CS).
- Secure the table and, if possible, lower it.
- Close all doors (including refrigerator door (absorber refrigerator<sup>\*</sup>), refrigerator compartment doors), drawers and flaps tightly (lock the central lock on the kitchen drawers).
- If necessary, secure the TV bracket<sup>\*</sup> and, if possible, remove the TV <sup>\*</sup> and store it securely.
- Turn off interior lights.

- Fully open the Remis Blinds<sup>\*</sup> for the driver's cab and lock them into place.
- Should there be a thermal curtain<sup>\*</sup>, remove it from the driver's cab.



Do not overload the vehicle! It is imperative that you not the permissible axle loads, the technically permissible overall mass as well as the permissible height, width and length of the van.

Gas bottles must be placed and secured correctly in the gas box only.

Ensure that there is sufficient ventilation. Never cover up built-in forced ventilation (skylights with forced ventilation or mushroom vents). Ensure that forced ventilation is not covered by snow or leaves as this increases the **danger of suffocation**.



Place a note with all important measures and weights in a visible place in both the van and the driver's cab.

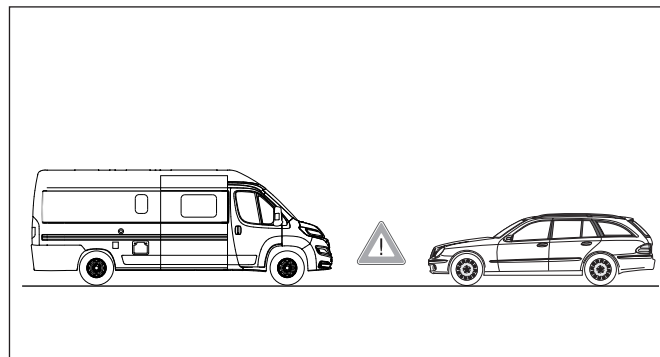
## Exterior

Check the exterior of the vehicle and carry out the following preparations before driving:

### Preparing the vehicle

- Close all of the windows in the living room as well as the roof bonnets and roof windows.

- Retract the entrance step<sup>\*</sup>.
- If necessary, retract the satellite dish<sup>\*</sup>.
- If necessary, switch off the awning light.
- Close and lock the sliding door, rear and service flaps in the superstructure.
- Close the tap for the waste water tank.
- If connected remove the 230 V electric cable from the exterior socket.
- If necessary, secure any bicycles on the bicycle carrier<sup>\*</sup>, lashing them with the fastening straps to prevent them from slipping, and ensure that the vehicles rear lights are not covered. Fold away and secure the empty cycle carrier when reversing.
- If necessary, pack away the awning<sup>\*</sup> and stow the winding handle securely in the van.



**Observe the specific features of the van's driving performance!**

## 2.6 Whilst driving

### Your van is not a car!

In many situations, it reacts very differently to a “normal” car. Therefore, you should be prepared for the following differences:

### Passenger safety

#### The following applies while driving:

- Only those seats equipped with seat belts may be used by passengers.
- People may not be lying in the beds while driving.
- Passengers must remain in their seats with their seat belt on!

- Only fit children's car seats on seats that have been fitted by the manufacturer with three-point belts.
- Turn the cab seats to face forward and lock them into place. The seats may not be turned when the vehicle is moving.
- Lock the sliding seat\* into its original position.
- Do not open the door latch!
- You must only have the same number of passengers as seats with seatbelts fitted!

## Driving

Before the first longer journey, take a test drive or complete a safety training course to familiarise yourself with the van's driving and handling characteristics. Remember to practise reversing. The base vehicle is a commercial vehicle; adjust your driving style accordingly.

### The following applies for driving:

- Do not underestimate the length and width of the van. Due to the relatively long rear overhang larger vehicles can veer to one side and, on uneven ground, the rear can hit the ground.
- Be careful when driving into inner courtyards and through entrance gates.
- The van may start to swing from side to side in cross-winds, on wet or icy roads.
- If the van starts to sway, step carefully but firmly on the brake to stabilise the vehicle.

- **Never** accelerate if the van starts to sway.
- Adjust your speed to road and traffic conditions.
- Long descents with a slight gradient can become dangerous. Adjust your speed from the very beginning to allow you to speed up if necessary without endangering other road users.
- As a general rule, never drive faster downhill than uphill.
- The van may be caught up in a slipstream when overtaking or being overtaken by lorries with trailers or buses. This effect is counteracted by lightly counter-steering.
- Use foresight while driving; take regular breaks on longer journeys.

## Driving around corners

Due to its height, a van becomes unstable more quickly than a car.

### The following applies for driving around corners

- Never drive too quickly into a bend!
- When turning off the road, always pull out a little more to ensure a larger curve radius. Please note that, depending on the model, the rear end of the van may swing out. This is more noticeable when the motor home has a long rear overhang.

## Driving economically

The engine of your van has not been designed to drive constantly under a full load.

### The following applies when driving

- Do not keep your foot down on the accelerator!
- The final 20 km/h before reaching top speed require up to 50 % more fuel!

## Braking

A van has a different brake response than that of a car. For this reason, inexperienced drivers in particular should carry out several test braking manoeuvres in a suitable location before driving on the road. The braking distance of the van is longer than that of a car. Furthermore, it is strongly influenced by how heavily the van has been loaded.

### The following applies for braking

- Note the longer braking distance, especially on wet roads.
- When driving down a mountain, do not select a gear that is higher than the one used when driving up a mountain.



Should there be any defects or malfunctions in the driving performance of the van, please notify roadside assistance and have any maintenance and repair work carried out by an authorised specialist.

## Reversing/Manoeuvring

**Your van is far larger than a car.**

### The following applies to reversing/manoeuvring

- Even if the wing mirrors are correctly adjusted there is a significant blind spot.
- When reversing or parking in places with poor visibility get help to guide you in.

## Refuelling

A number of devices that use an open flame have been built into your van.

### The following applies when refuelling:

- Switch off all gas appliances (heating, cooker, absorber refrigerator\* (when operating on gas), etc.)!
- Turn off all mobile phones!
- Never get anything other than diesel fuel.
- Never mistakenly fill the fresh water tank with fuel.

## 2.7 After driving

### Selecting a parking space

#### The following applies for selecting a parking space

- If possible, pick your spot in daylight.
- Select a parking space that is as level as possible.
- Use the front step as a control point to check that your van is standing in a horizontal position (important to ensure that the absorber refrigerator\* functions correctly).
- On uneven ground or slopes, compensate for any incline by using ramps or leveling blocks underneath the wheels.

### Pitching or siting vehicle

#### The following applies when pitching or siting the vehicle

- Put the vehicle in gear.
- Pull on the handbrake.
- If necessary, use blocks (not in scope of delivery).



When turning the driver's seat, ensure that you do not accidentally disengage the handbrake.



Should the temperature be around 0° C or less, only pull lightly on the hand brake and always leave in gear so that the hand brake does not freeze!

## Switching to mains hook up

#### The following applies when when to mains hook up

- Open the main stop valve on the gas bottle and the gas stop valve on the appliance required.
- If necessary, switch the refrigerator from 12V to gas or 230V because the 12V supply will automatically be switched off after a brief period of time when the van's engine is not running (applies only for absorber refrigerator\*).

## Water installation

Water left standing in the fresh water tank or the pipes quickly becomes undrinkable.



Please empty any residual water from the water tank before filling it with fresh water.

Therefore, check the water pipes and the fresh water tank before each journey to ensure they are clean. Disinfect and rinse the drinking water system regularly, and always before each journey.

## Chapter 3: Chassis

### 3.1 General Information

The chassis includes parts of the frame and the axles. No technical changes may be made, as otherwise the general type approval will no longer apply or be valid!



Technical changes may only be carried out after being released by the manufacturer.

For further information, please refer to the enclosed operating instructions for the basic vehicle.



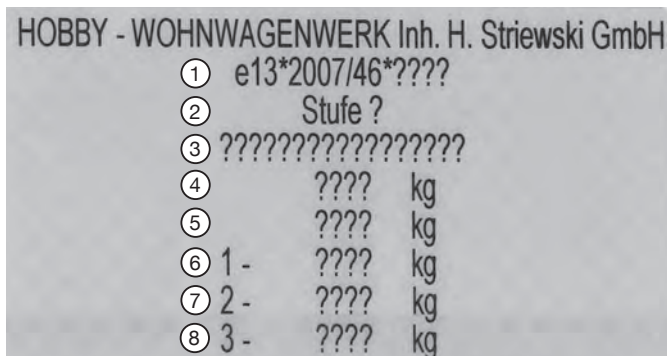
**VIN of the base vehicle**

### 3.2 Vehicle identification number (VIN)

The 17-digit vehicle ID number has been applied to the inner wheel arch on the passenger's side.

To identify it more easily, the VIN can also be found on a label on the nearside of the windscreen at the bottom, which is legible from outside the vehicle. In addition, the VIN is also given on the type plate of the base vehicle as well as on the Hobby type plate (on the right-hand B-pillar, located in the middle above the lock on the door).

Always have your VIN at hand whenever you have a question or visit your dealer/service partner.



#### Hobby name plate

- ① Approval number
- ② Manufacturer's version
- ③ Vehicle identification number
- ④ Technically permissible maximum laden mass of combination
- ⑤ Permissible towing weight
- ⑥ Permissible axle load, 1st axle
- ⑦ Permissible axle load, 2nd axle
- ⑧ Permissible axle load, 3rd axle



Do not remove or change the name plate.

## 3.3 Loading

### 3.3.1 General information

#### Rules for loading:

- Spread the load evenly between the left and right-hand side of the van. Heavy or bulky objects should be placed in the lower storage compartments and near the axle.
- Never overload the rear of the van, because this will have a negative influence on its driving performance.
- The lower the van's centre of gravity, the better its driving performance and response will be in when cornering.
- Store baggage in the interior in cupboards and storage compartments.
- Heavy objects should be stowed securely to prevent them from moving.
- Lighter objects (clothing) should be stowed in the wall cupboards.
- Secure doors and lockers.
- Check the technically permissible maximum weight and the axle load(s) after you have finished loading.
- Slatted frames, Secure mattresses, crossbeams and, if necessary, the bed expansion if these are in a transport position.



### Storage space in the rear

When loading the rear of the van, please observe the permissible axle loads and the technically permissible maximum weight. Distribute pay-load evenly. Items with sharp edges will damage the floor covering.

All of the equipment carried in the rear of the van must be securely fastened using lashing eyes and suitable retaining straps.



- On no account should the permissible rear axle load be exceeded.
- When the storage space in the rear is fully loaded, the driving performance of the van becomes considerably worse due to the load drop on the front axle.
- Always check that the lashing rings are firmly locked before you start your journey.
- The owner/driver of the vehicle is always responsible for ensuring that loads transported in the rear garage have been correctly secured. As far as possible, always use tension belt systems licensed for this purpose.
- Never use bungee straps. Remember that exceptionally strong driving dynamics can occur in dangerous situations or when you are forced to slam on the brakes.



The maximum axle loads as well as the technically permissible overall mass entered in the vehicle's documents must not be exceeded

Overloading can cause the tyres to break down or even burst! This increases the danger that you may lose control of the vehicle. Therefore, you endanger yourself and other road users.



If you are not sure whether or not you have overloaded the vehicle, you should have it weighed at a public weighing facility.

### 3.3.2 Definition of weights for vans

EU Directive 1230/2012 applies at a European level for calculating the weights and resultant additional loads for vans. The terms and basis used for calculations are explained below.

#### 1. Technically permissible overall mass

Information regarding the technically permissible maximum weight is based on Hobby Wohnwagenwerk's specification in cooperation with the manufacturers of the base vehicle (Fiat). This mass takes into account the specific operating conditions that are based on the model of the van and its performance, including such factors as material strength, load-carrying capacity of the axles and tyres, etc. For safety reasons, this weight must never be exceeded!

#### 2. Mass in running order (MRO)

The mass in running order is equal to the weight of the empty vehicle including lubricants, tools, spare tyre (or tyre repair kit), petrol (90 %), ancillary battery, all of the standard equipment installed by the factory as well as 75 kg for the driver. Then add the weight of the fresh water container, holding 10% of a full tank, as well as that of a full gas bottle. The masses are calculated in detail as follows:

	FIAT Vantana
<b>a) Supply of liquefied petroleum gas</b>	
Number of built-in gas regulators:	1
Weight of an 11 kg aluminium bottle:	5
Weight of 11 kg gas inflation:	11
<b>Total:</b>	<b>16</b>
<b>b) Liquids</b>	
95 l fresh water tank:	95
10 l hot water heater (heating):	10
<b>Total basic equipment:</b>	<b>121 kg</b>

### 3. Additional equipment / optional extras

Weight of the equipment that was assembled by the manufacturer in or on the van in addition to the standard equipment. These optional extras will be shown in the actual weight of the vehicle if

- they are not part of the standard scope of equipment,
- Hobby or the manufacturer of the base vehicle were responsible for assembling them,
- the customer can order them.

### 4. Actual mass

Sum of the mass when ready to drive and the optional extras or additional equipment assembled by the manufacturer.

### 5. Loading capacity / payload

Difference between the technically permissible maximum weight and the mass in running order, plus the weight of the passengers and the weight of the additional equipment.

### 6. Minimum loading capacity

The loading capacity must be equal at least to the formula

$10 \times (n + L)$ , whereby:

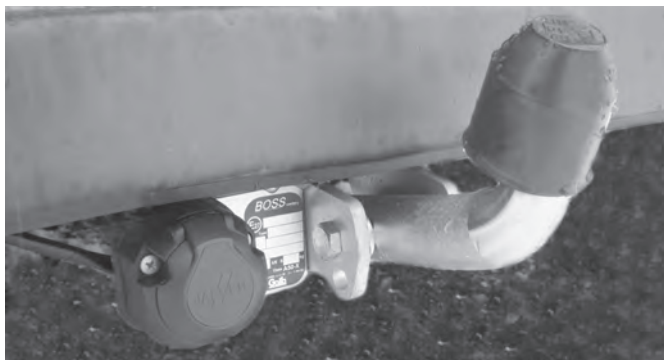
- n** - highest number of passengers plus the driver
- L** - total length of the superstructure in meters

The minimum loading capacity includes objects that users may carry in the van which are not included in the mass in running order (MIRO) or in the optional extras (e.g. clothing, toilet and kitchen fittings, food, camping equipment, toys, pets).

The remaining additional load (**5.**) must always be greater than or equal to the minimum loading capacity (**6.**); this must be taken into account when determining the configuration of the vehicle.



If the vehicle does not hold the equipment and liquids set out in the table in Item 2 (mass in running order (MIRO)), the loading capacity/additional load (Item 5) can be increased by this value.



Tow bar

### 3.4 Tow bar \*

The maximum towing weight, trailer load and tow bar load are set out in **Chapter 14 "Technical Data"**.



Please ensure that the permissible tow bar load, maximum towing weight and rear axle load for the vehicle are not exceeded, especially when you are loading the rear garage. Simultaneous use of the tow-bar and the rear carrier\* is not permitted.

While manoeuvring to hitch and unhitch loads, ensure that no-one is standing between the van and the trailer.



Due to stipulations by the manufacturer of the basic vehicle and the fixing of the so-called D value of the tow bar no additional loading of the towing loads is possible.

If you wish to increase the trailer load, a stronger motor is required.

## 3.5 Aftermarket Modifications

### Registering accessories in the vehicle's documents

- Have your HOBBY dealer fit your aftermarket modifications.
- Take your van to a technical support organisation or technical service provider (e.g. MOT).
- The technical support organisation will approve the fittings and draw up a certificate. (road traffic authorities)
- Take the certificate and the Motor Vehicle Registration Certificate Part I to the national vehicle registration authority (Driver & Vehicle Licensing Agency). They will enter the change in the registration document.



If applicable, please observe national regulations in foreign countries. Please remember that the tow bar, motorcycle carrier, pneumatic suspension and/or additional leaf springs must be entered in the registration document.

Please note that fitting additional equipment reduces the load your van can carry.



### 3.6 Automatic transmission \*

As an option, your van can be equipped with an automatic transmission (Comfort-Matic) which has two methods of operation: MANUAL/gearshift and AUTO(MATIC). Since the clutch is engaged and released by means of an electro-hydraulic unit that is controlled by the transmission's control unit, the clutch pedal is superfluous and, therefore, it has been removed. Both the selected method of operation as well as the gear you are driving in are shown on the multifunction display panel.

#### FIAT Comfort-Matic

The gearshift lever on the dashboard has three fixed positions:

- centre position for selecting the forward gear “D”,
- top right: for selecting the neutral position “N” (engine is idle),
- bottom right: for selecting the reverse gear “R”.

Starting from the centre position, which corresponds to the forward gear, the lever can be moved as follows:

- forwards (- position) to select a lower gear (i.e. shifting down),
- backwards (+ position) to select a higher gear,
- to the left (A/M position) to select automatic or manual mode, alternatively.

These three positions are not fixed, i.e. after the lever has been moved it jumps back to the centre position.

#### Manual operation

This method of operation allows the driver to select a suitable gear according to the conditions under which the vehicle is being driven. Change gears as follows:

- Move the lever in the direction of (+) to change up or in the direction of (-) to change down. Do not let go of the gas pedal while you are changing gears.

The system will only allow you to change gear when such an action will not prevent the motor or the transmission from functioning correctly. As soon as the motor reaches idle speed, the system will automatically change down (e.g. when braking).

### Automatic operation

The lever must be pressed in the direction of A/M in order to switch automatic operation on or off. The system automatically shifts gears on the basis of the vehicle's speed, the engine rpm and the position of the accelerator pedal.

If necessary, the system will shift down one or more gears when you press the accelerator pedal down fully. This will provide you with the required performance and torque to achieve the acceleration you require.

### Parking the vehicle

To ensure that the vehicle is safely parked, step on the brake pedal and then change into either first gear or reverse (R). Furthermore, when parking on a slope, you must also pull the hand brake.

If the vehicle is brought to a halt while in automatic mode, the automatic transmission will automatically shift into first gear. Alternatively, you can change manually into first gear.



Never leave the vehicle when the transmission is in neutral (N).



If the vehicle is not moving and you have already selected a gear, always press the brake pedal until you have decided to start driving. Only then should you release the brake pedal and slowly step on the gas pedal.

If the vehicle is not moving and the engine is running for a longer period of time, we recommend that you select to neutral (N).

Do not use the gas pedal as a means of holding the vehicle in one spot (e.g. on a slope). Instead, use the brake pedal and step on the gas only when you start to drive.

If you want to select first gear when in reverse gear (R) or vice versa, the gearshift lever may only be moved when the vehicle is standing completely still and you are pressing down the brake pedal.

For further information, please refer to the operating instructions for the base vehicle. Please familiarise yourself sufficiently with the operation of the automatic transmission before you use your vehicle for the first time.

# Chapter 4: Wheels and Tyres

## 4.1 Wheels

### The following applies for wheel studs

If you are driving a new vehicle, or after changing a tyre, tighten the wheel studs or nuts after you have driven the first 50 km and then again after the following 100 km. For your safety, do not use any tyres or wheel studs other than what was originally stipulated. Wheel bolts and nuts should then be checked regularly to ensure that they fit tightly.

### Tightening torque for wheel nuts and studs:

Rim size	Fiat Ducato
16"	180 Nm
15"	160 Nm



Check and or re torque every 5,000 km or at least once a year.

## 4.2 Tyres

Use only tyres that have been entered in the vehicle's documents. Other tyre sizes may only be used if they have been approved by the base vehicle manufacturer.

- Check tyres regularly to ensure that the tread is worn down evenly; check tread depth; check for external damages.
- Always use the same make and model of tyres (summer or winter tyres).
- Drive carefully on new tyres for a distance of approx. 100 km to enable them to develop a full road grip.

### Driving to protect your tyres

- Avoid braking sharply and racing starts.
- Avoid long journeys on poor roads.
- Never drive an overloaded vehicle.



Tubeless tyres have been mounted on your HOBBY van. Under no circumstances may tubes be inserted in these tyres!

**Winter tyres are mandatory in many EU countries!**  
If you are driving in snow, ice or slush in one of these countries, your vehicle must be fitted with tyres that have the "M+S" symbol. You may be fined if you ignore this legal requirement.

## Snow chains



Never drive faster than 50 km/h.

Do not use snow chains on snow-free roads.

Snow chains can only be fitted to wheels and tyres that are the same sizes as originally fitted to the vehicle.

Snow chains may only be mounted on the front drive wheels; it is strictly forbidden to mount snow chains on the rear wheels.

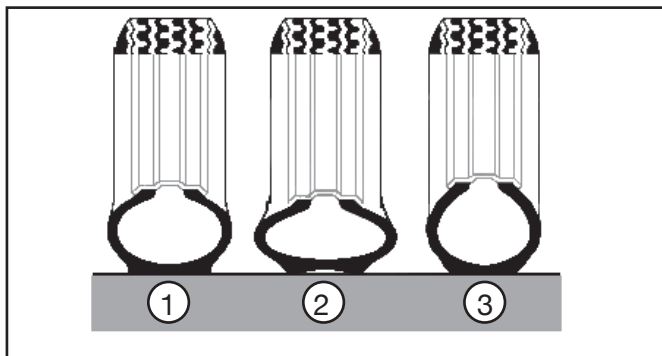
Any wheel trims must be removed before putting on snow chains.

## 4.3 Tyre pressure

### The following applies when checking tyre pressure:

- Check and correct the tyre pressures every four weeks (but at least every three months) and before every journey.
- You should only check tyre pressures when the tyres are cold.
- If checking or correcting the pressure of a warm tyre, the pressure must be 0.3 bar higher than for a cold tyre.
- If driving on low tyre pressure is unavoidable (i.e., from the campsite to the nearest service station) you should drive at a maximum speed of 20 km/h.





**Different tyre pressures**

**The following applies for inflation pressure:**

- correct inflation pressure ①.
- inflation pressure too low ②.
- inflation pressure too high ③.



If the pressure is too low, this may cause overheating of the tyre, possibly resulting in severe damage to the tyre. If the tyre pressure is too high, this will lead to increased wear and tear of the tread and may cause damage to the wheel suspension.



For the correct inflation pressure, please refer to the table in the chapter on “Technical Data” or the operating instructions for the basic vehicle.

## 4.4 Tyre tread depth and age of tyres

The law states that tyres must be replaced when the tread depth gets to 1.6 mm.



The minimum tread depth gives you only the barest amount of safety while driving. The following recommendations must be observed:

Safety limit in summer: 3.0 mm

Safety limit in winter: 4.0 mm

Tyres should never be exchanged from one side to the other, i.e. from the right-hand side of the vehicle to the left-hand side and vice versa.



Tyres age even if they are seldomly used or not at all.

## Tyre manufacturers' recommendations

- Irrespective of their tread depth, tyres should be changed every 6 years.
- Avoid hard impacts against curbs, potholes or other obstacles.



**DOT number**

### Age of tyres

Tyres should never be more than six (6) years old as the material becomes brittle with age and when the vehicle is not used for a longer period of time. The four-digit DOT number on the side of the tyre (it may be necessary to check the inner side) indicates the date it was manufactured. The first two digits refer to the manufacturing week, the last two digits to the manufacturing year.

#### Example:

DOT 1818 means week 18 in the year of manufacture (here: 2018).

## 4.5 Wheel rims

Only use the rims noted in the registration documents.

Should you wish to use other rims, please note the following.

#### The following applies when using other wheel rims:

- Size,
- The pitch Circle Diameter (PCD) and the wheel offset,
- The load bearing capacity must be sufficient for the permissible total axle weight.
- The wheel nuts must be the correct type for the wheel rims fitted. i.e. Steel / Alloy (cone washer, spherical wheel bolt)



Adaptations are only permitted if these have been released by the manufacturer.

## 4.6 Changing a tyre

### Preparing to change the tyre

- Park the vehicle on a surface that is as level and firm as possible.
- Should there be a blowout on a public road, switch on the warning lights and set up the warning triangle.
- Pull the hand brake, select first gear and align the wheels so that they are straight. When the vehicle has been brought to a halt, the automatic transmission will automatically shift into first gear.
- If necessary, place chocks in front of and behind the wheel that is still in good order so as to secure the vehicle.

### Changing a tyre

- Place a firm base, such as a piece of wood, underneath the car jack if the vehicle is on soft ground.
- Insert the car jack into the appropriate mounting holes.
- Turn the wheel brace one full circle to loosen the wheel nuts, but do not remove them.
- Jack up the vehicle until the wheel is 2 -3 cm above the ground.
- Reset the car jack if it slips while the vehicle is being jacked up.
- Remove the wheel studs/nuts and lift off the tyre.
- Place the spare tyre (not included in the scope of delivery) on the wheel hub and align it.

- Screw the nuts on and tighten them in a diagonal sequence.
- Lower the car jack and remove it.
- Tighten the wheel nuts evenly with the wheel brace. Please refer to the operating instructions for the base vehicle for the specified torque setting for the wheel nuts **(or chap. 4.1)**.



After changing the tyre, the wheel nuts must be examined (after a 50 km drive) to ensure that they are tight enough (tighten if necessary).

The car jack (not included in the scope of delivery) must only be inserted in the appropriate mounting holes! If the car jack is attached in other places, this may cause damage to the vehicle or even accidents if the vehicle falls off the jack.

The car jack is to be used only for changing tyres. It may never be used when working underneath the vehicle! Danger of death!



When changing a tyre, please also observe the vehicle manufacturer's operating instructions.

You should have a functional spare tyre available at all times. Therefore, have the spare tyre replaced without delay.



**Fast tyre repair kit**

## **4.7 Fast tyre repair kit**

The standard version of your van does not have a spare tyre. Instead, a fast tyre repair kit is included.

Do not use the fast tyre repair kit if the tyre was damaged by being driven when insufficiently inflated. If the tyre rim is damaged (i.e. if the groove is deformed so that air escapes) it is not possible to repair the tyre. Small punctures, especially in the tyre tread (with a max. diameter of 4 mm) can be sealed using the fast tyre repair kit. Do not remove foreign matter (e.g. a screw or nail) from the tyre.

The fast tyre repair kit can be used when the outside temperature ranges from  $-40^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ .



Please refer to the enclosed guidelines for instructions on how to use the fast tyre repair kit.

There is an expiry date on the sealant. Therefore, please note this date. It is not possible to guarantee that the tyre repair kit will function properly if the sealant has been used after the expiry date.

## Chapter 5: Exterior Structure

### 5.1 Ventilation

#### The following applies for ventilation:

Ventilation is important if you want to feel comfortable in your van. Draft-free ventilation is integrated in your van via the traction unit; de-aerating via the roof bonnets. Do not interfere with their mode of operation!



Never cover the safety ventilation, not even partially. Keep the vents and coverings clean and dust-free. When using an awning, ensure that there is good ventilation if the fridge vents and other fixed ventilation points are located inside the awning.



We recommend that you open the roof lights whenever you live in the van.

Condensation is produced while cooking, from wet clothes, etc. Every person produces up to 35 g of water vapour per hour. Therefore, depending on the relative humidity, the windows and skylights must be opened for further ventilation (see also “**12.7 Operating in Winter**”).

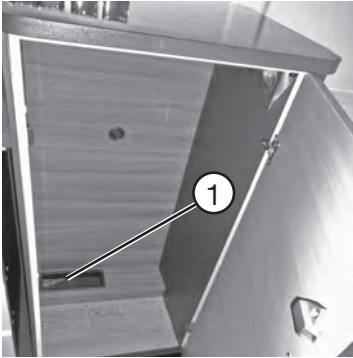
### Refrigerator

Ventilation and de-aerating of the refrigerator/compressor is a prerequisite for sufficient cooling capacity. The ventilation grills must not be covered up or blocked.



Do not block the refrigerator's ventilation grill so as not to restrict cooling performance and the functions of the refrigerator.

If the temperature outside is very high, we recommend that you park the vehicle in the shade to maintain the cooling capacity.



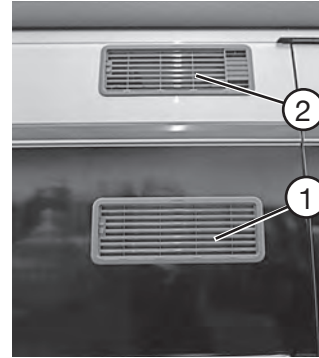
Ventilation grill, floor

### Slimline Refrigerator

The refrigerator compressor is supplied with fresh air via ventilation grills ① in the floor.

The ventilation grills are located underneath the kitchen unit and, depending on the model, may jut into the clothes cupboard.

Do not overload the drawers in the kitchen unit and never place any clothes or other objects over the ventilation grill in the clothes cupboard.



Ventilation grill side wall

### Absorber refrigerator\*

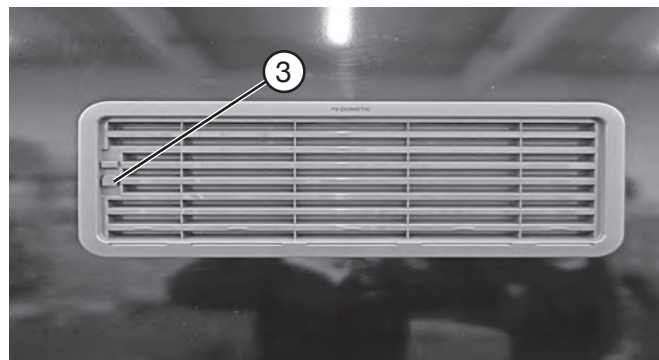
Grates supply the refrigerator with fresh air from outside to ensure sufficient refrigerating capacity. The grate for fresh air intake ① is on the outside wall of the vehicle. The ventilation grill ② is located above the air vents.

When the refrigerator is not being run, the ventilation grills can be closed using the appropriate covers.



Do not block the refrigerator's ventilation grill so as not to restrict cooling performance and the functions of the refrigerator. These winter panels are a chargeable option; they can be ordered from your dealer.

Please also note the information on the covers. For further information, please check the operating instructions of the refrigerator manufacturer.



**Locks for ventilation grille**

### **Removing the ventilation grilles during maintenance and repair**

- Push the lock ③ as far down as possible.
- Carefully lift open the ventilation grill on the left-hand side.
- Then pull the right-hand side out of the bracket.



The ventilation grilles must be firmly mounted while driving or when it is raining.



Ventilation for the compressor  
Vantana De Luxe



Ventilation for the compressor  
Vantana Ontour

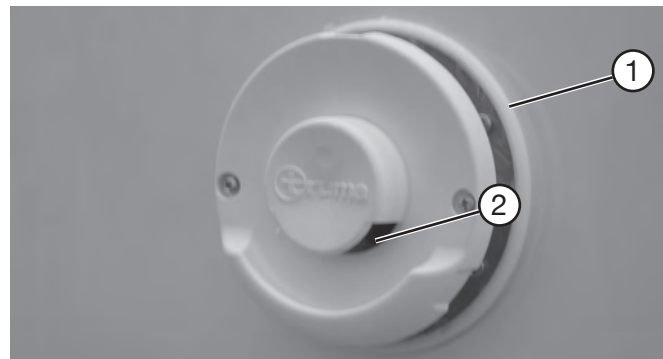
## Compressor refrigerator

In the Vantana De Luxe model, the compressor refrigerator draws in the air it requires to cool the device through the lower part of the refrigerator, on the floor.



Ensure that the lower part of the compressor refrigerator is not blocked in the **Vantana De Luxe** model so that it can continue to draw in air.

In the **Vantana Ontour** model, the cold air is sucked in through the upper ventilation grille; the hot air is extracted through the same grille.



Heating flue

## Heating

Air for the heating system is supplied from outside using combustion air ①. At the same time, the exhaust air from the heating system ② is ducted outside.



Blocked ventilation openings can cause malfunctions and may channel exhaust fumes inside the van. **Danger of suffocation!**

When operating in winter ensure that the chimney outlet is not blocked.



## 5.2 Opening and closing doors and lockers

### Keys to the vehicle

The following keys are supplied with the van:

- two keys to fit the following locks on the base vehicle:
  - driver's and passenger's doors
  - sliding door
  - rear doors
  - patrol flap
- a code card.

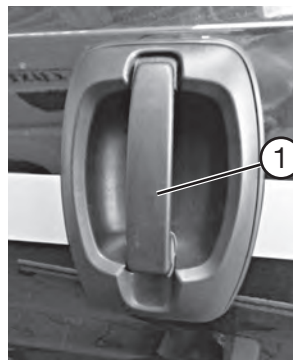


Note the manufacturer's operating instructions for the basic vehicle.

- two keys that fit the following locks on the structure:
  - toilet cassette locker door,
  - fresh water filler cap



In addition, a self-adhesive aluminium plate is included in delivery, engraved with the key number of the base vehicle.



Outside sliding door

### Outside sliding door



The lock on the sliding door is connected to the central locking system.

### Opening

- Use key to unlock door.
- Pull on door handle ①.
- Pull the door open as far as it will go until you can feel it lock into place.

### Closing

- Pull on the door handle ① to unlock it.
- Pull the door shut until it is completely closed.
- Lock the door with the key.



The window in the sliding door must always be closed before opening or closing the door.

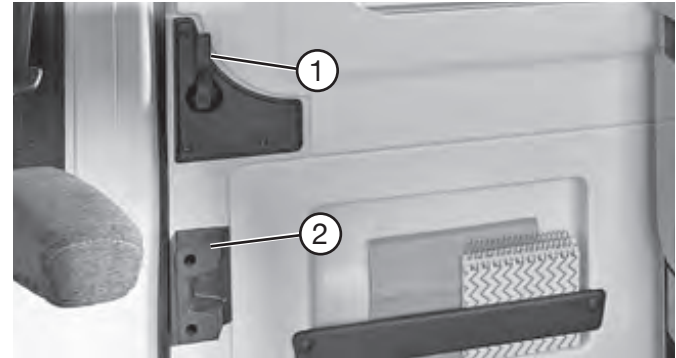
Ensure that neither people nor pets will be hurt when opening or closing the door.

The habitation door is your escape route in an emergency. Therefore, never block the door from the outside!

The sliding door must always be kept closed and locked while driving.



To avoid damage, do not use the track for the insect screen as assistance when entering the van.



Inside sliding door

### Inside sliding door

#### Opening

- Push the latch ① to the right and use the handle ② to open the sliding door as far as it will go.

#### Closing

- Pull the handle ② of the door closed until it locks into place and the door is completely shut.



Rear door from the outside

## Rear doors

### Rear doors from the outside (right rear door)

#### Opening

- Unlatch the lock with the key.
- Pull on the door handle ① .
- Open the door as far as it will go.



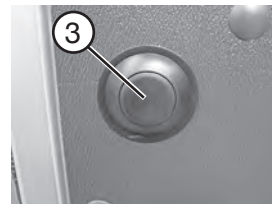
Rear door from the inside

### Rear door from the inside (left rear door)

The left rear door can only be opened after the right rear door has been opened.

#### Opening

- Pull the lever ② on the inside of the left door to unlock the door. Then open the door as far as it will go.



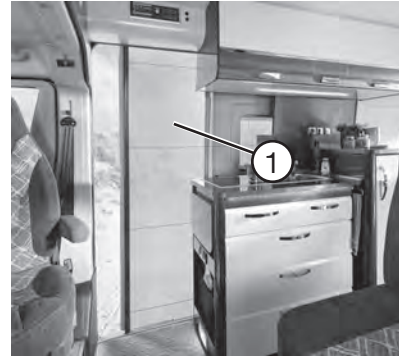
If the rear doors are to be opened by 180°, the buttons ③ on the inside of the doors must be pressed and held while opening each door by a further 90°. The buttons must also be pressed when closing the doors.



If the rear doors have been opened by 180°, particular attention must be paid to traffic on the road or passing cyclists.

If a bicycle carrier\* has been mounted, opening the rear doors by 180° may damage the van.

When closing the rear doors, ensure that the doors snap shut and lock them.



**Insect screen (plisse)**

### **Insect screen (plissé)\***

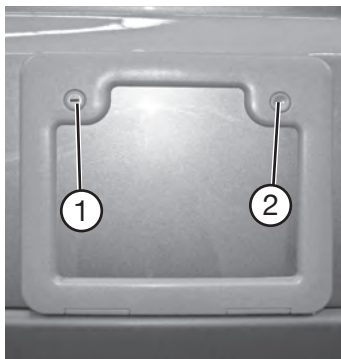


Push the insect screen on the screen door to the desired position. To open, carefully guide the rail back to the original position in order to fold the pleated screen correctly.

#### ① Insect screen on screen door



The insect screen may only be pulled out if the screen door is open. Only shut the screen door after the insect screen has been pushed back into its original position.



Toilet cassette door

## Toilet door

### Opening

- Use the key to unlock the door ①.
- Press both buttons (① and ②) and open the door.

### Locking

- Close the toilet door and push until it clicks into place.
- Use key to lock ①.



Cover flap

## Cover flap

The access to water, gas or electrical components is covered by these flaps; for example:



the fresh water filter point



external socket and antenna terminal\* in the awning



external gas socket\*



Mains hook up

### Opening

- Grasp the cover flap at the bottom of the latch and pull it up.

### Closing

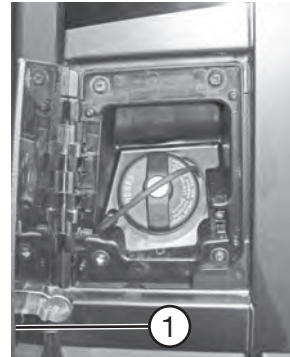
- Grasp the latch of the cover flap and close it until it clicks into place.

Please refer to the appropriate chapters on water (**chapter 8**), gas (**chapter 9**) and electricity (**chapter 7**) for information on handling the individual components.



When driving, the cover flaps must always be firmly shut.

Never fill any type of liquid (e.g. diesel, oil, cleaning solutions) other than water into the fresh water tank.



**Fuel cap**

### Fuel filler neck

The black fuel cap is covered by a flap located on the left side of the vehicle behind the door in the lower section of the B-pillar.

### Opening

- Open the flap by placing a finger in the notch ① and pulling out/forwards.

### Closing

- Push the flap until it locks.



Please refer to the separate operating instructions from FIAT for information on how to operate the fuel cap.



Extended entrance step

### 5.3 Entrance step\*

The vans are equipped with an electrically extendable entrance step ① (optional for Vantana ONTOUR).

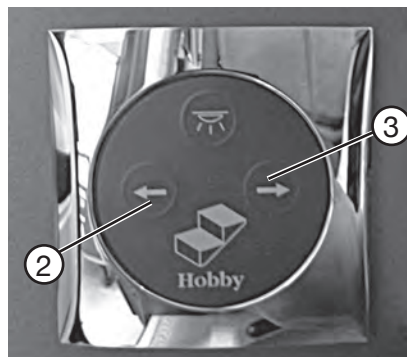


Do not step on the entrance step\* until it has been completely extended!

An installation box has been used to mount the entrance step\* underneath the floor of the vehicle. However, this limits the ground clearance of the van and, under unfortunate circumstances, may cause the vehicle to hit the ground. Therefore, your van is not suitable for driving over rough terrain.



Mind the different heights of the steps and ensure that the ground in front of the entrance is firm and level. Following a short delay after the motor is started, the step is automatically retracted.



Retracted entrance step

#### To open

- Press the switch ② in the entrance area.  
The entrance step\* will be extended automatically.

#### To close

- Press the switch ③ in the entrance area.  
The entrance step\* will be retracted automatically.



Make sure that when you press the switch you are not standing in the way of the entrance step as it is extended. **You could be seriously injured! Alternately make sure that nobody is standing on the step as it is retracted.**



Continue pressing the switch until the step has completely folded in or out.

If, due to dirt or frost, the entrance step does not function properly or at all, the hinges must be cleaned or defrosted. Please observe the enclosed manufacturer's operating instructions.

## Vantana ONTOUR

The standard version of the Vantana ONTOUR series is supplied with a plastic step.

The following applies when getting in and out of the van:

- Place the step in front of the van's sliding door.
- Ensure that the step is firmly on the ground. This prevents the step from sliding.



Bicycle carrier, loaded

## 5.4 Bicycle carrier \*

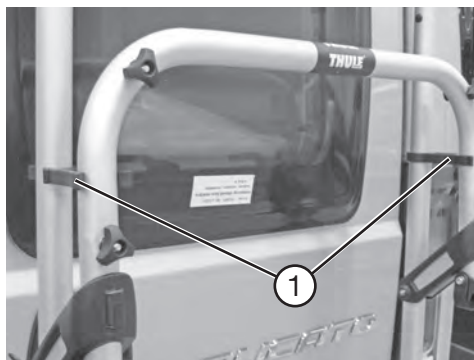


Please read the separate operating instructions for the bicycle carrier before using it.

The van's handling when driving is significantly different when the bicycle carrier is in use. The driving speed should be adjusted accordingly to take this into consideration:

- The driver is responsible for the secure fastening of the bicycles. The loading system must be folded up and secured by means of the straps attached, even if nothing has been loaded.
- Ensure that the existing lighting equipment is not completely or partially obscured by any loads.





**Bicycle carrier, secured**



When opening the rear doors by 180° (see p. 38 **Rear doors**) the van may be damaged by the bicycle carrier.



The maximum permissible loading capacity for the bicycle carrier is 35 kg.

If the rear-mounted bicycle carrier is not required, it must be folded up and secured. To do this, use the separate fastenings ① (may be in the accessory kit).

When driving with bicycles, the bicycle carrier must be unfolded and the straps ② must be firmly lashed. The front and back wheels of each bicycle must be firmly lashed using the straps ②. The fastenings included in the accessory kit are used for the frame.



Awning

## 5.5 Sun awning \*

As option, your van can be fitted with an awning attached to the roof.



- An awning offers protection from the sun, not against the elements.
- Do not place people or obstacles in the extension/retraction area of the awning.
- The awning winding mechanism is fitted with a mechanical block control to limit the extent to which it can be extended. Never attempt to exceed the block control by force.
- Always support the awning with the built in adjustable legs when extended.
- The awning must always be completely retracted and secured before driving.

### Extending

- Insert the hook on the winding handle into the grommet on the winding mechanism.
- Hold the handle with one hand on the upper twist grip and the other on the lower twist grip. During the operating procedure gently pull the handle towards you and hold it as vertically in the grommet as possible.
- Turn the handle clockwise until the awning has been rolled out about 1 m.
- Unfold the adjustable legs on the inside of the drop tube and use them to support the awning.
- Only then should you roll out the awning to the desired position.
- Remove the handle.

### Retracting

- Insert the hook on the handle into the grommet on the winding mechanism.
- Turn the connecting rod counter-clockwise until the awning has been rolled in except for the last meter.
- Lift up the adjustable legs, fold them up and secure them.
- Only then should you roll in the awning completely and secure it.
- Remove the handle and store it in the vehicle.



If the canvas is slack when extended, retract the awning until the canvas is tightly stretched again.

Please read the manufacturer's separate operating instructions before use.

## Chapter 6: Interior Structure

### 6.1 Opening and closing doors and drawers

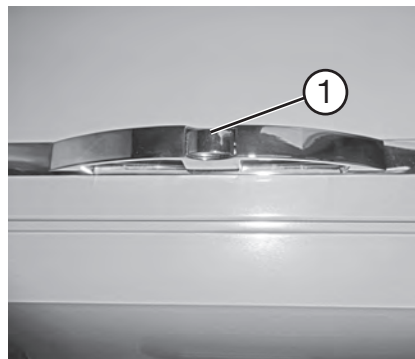
#### Furniture doors with a locking mechanism



Store only light objects in the upper stowage cabinets.



Please observe the maximum load of 15 kg per drawer.



Handle with locking mechanism

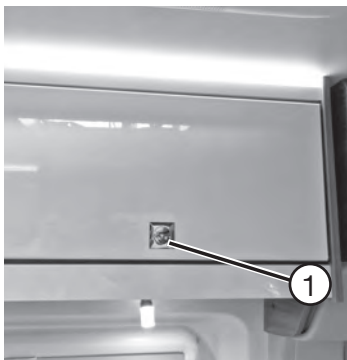
#### Handle with locking mechanism (Vantana Premium)

##### Opening

- Press the pushbutton ① to unlock the flap/drawer.
- Pull on the handle until the door opens.

##### Closing

- Use the handle to close the door/drawer until it shuts and noticeably locks itself into place. Should this not be the case, the door must be locked by hand.



Cupboard door with pushlock



Push button lock on the kitchen drawers

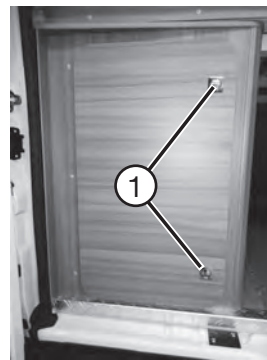
## Pushlock fitted to kitchen doors/drawers

### To open

- Press the push-lock ① until the button springs out.
- To open the door or drawer, pull carefully.

### To close

- Shut the door/flap or drawer.
- Press the pushlock ① until the button stays in the closed position and the door or drawer is securely closed.



Door of the gas-bottle container

### Door of the gas-bottle container

To open and shut the door of the gas-bottle container, both pushlocks ① must first be unlocked and then locked again.



When the gas bottles are attached, the door of the gas-bottle container should always be firmly closed while driving or when using the van as living space.



**Mirror cabinets**

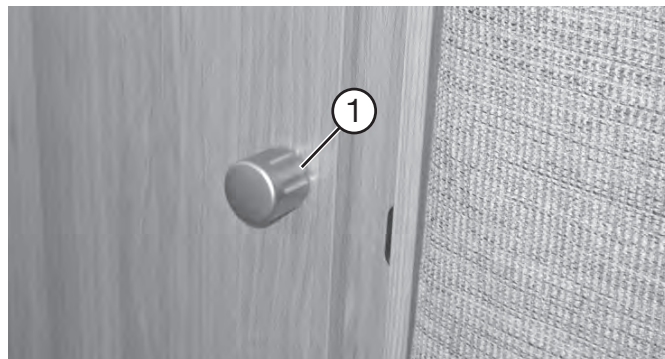
### **Mirror cabinets**

#### **Opening**

- Open the door of the mirror cabinet by pressing the lower edge of the lock from behind.

#### **Closing**

- Push the door of the mirror cabinet back to its original position until it noticeably locks itself into place.



**Adjusting knob**

### **Washroom door**

#### **Opening**

- Turn the knob ① to the left until the mechanism opens. Then use the knob ① to carefully pull the door open.

#### **Closing**

- Use the knob ① to carefully pull the door shut until you feel the resistance.



Slide out flat screen

## 6.2 TV mount\*

230 V sockets and the aerial connection for the TV and the receiver are located directly next to where a bracket is fitted for the TV (model-specific location).

### Slide out bracket for flat screen TV

- To unlock, press the metal rail ① and, at the same time, extend the TV mount.
- To retract the mount, push it back to its original position until it is noticeably locked into place.



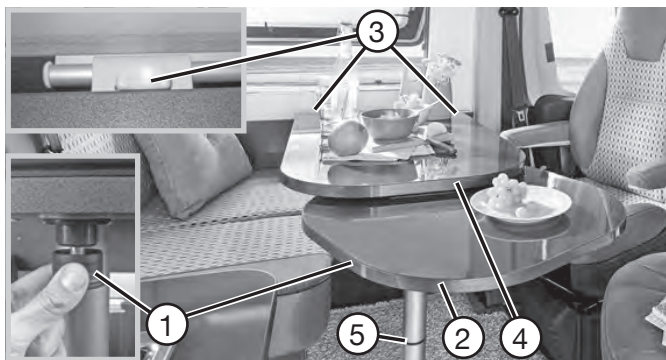
Lock the media unit or TV bracket before driving.

The mounted TV must not weigh more than 8 kg. When driving, we recommend that you remove the TV from the bracket and store it securely.



Please measure the installation dimensions of your van before you buy or install a television.

The measurements depend on the model and optional extras.



Hanging table with extendable table top

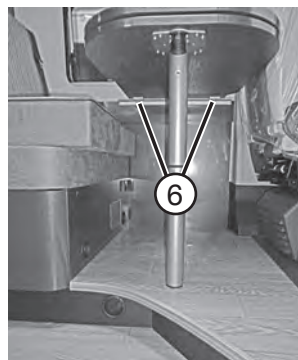
### 6.3 Tables

#### Hanging table

The lower table top of the hanging table can be turned out. To set up the emergency bed in the seating arrangement, lower the hanging table.

##### To swing out the table top

- Pull the locking pin ①.
- Swivel the lower table top ② to the desired position.



Lowered hanging table

#### Lowering the table

- Fully retract the lower, pivotable table top ② until it locks into place by itself.
- Press the lock ③ down
- Raise the front end of the table top ④ by approx. 30°.
- Pull down the lower section of the table foot ⑤ and remove it.
- Pull the table top out of the upper wall bracket ⑥.
- Hang the table into the lower wall bracket. Push the lock ③ back up again to lock the table securely in the bracket.
- Place the shortened supporting leg ⑦ at the front edge of the table top on the floor.

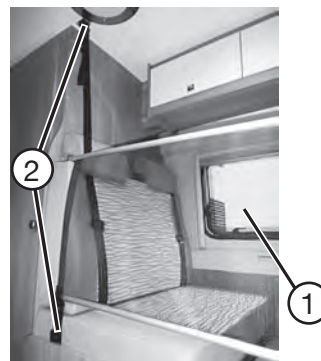


Children's emergency bed

## 6.4 Seating arrangements and sleeping areas

### Emergency children's bed in the seating arrangement\*

The seating arrangement can be converted to an emergency bed.

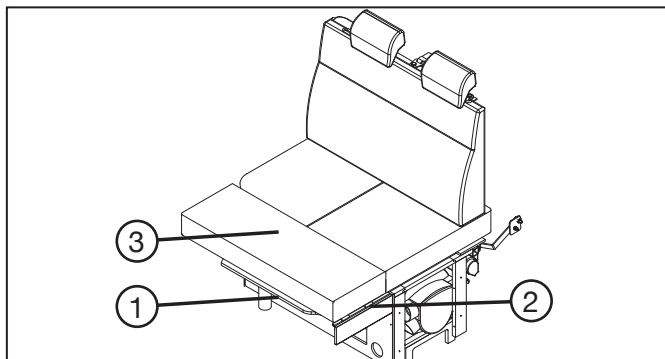


Net to protect against falling out

### Children's emergency bed: net to protect against falling out

Parents are responsible for ensuring that small children do not fall out of the emergency bed. Should small children be allowed to sleep in the emergency bed, the safety net ① provided to protect them from falling out must be fitted in the brackets ② on both sides at the top and bottom. The upper brackets are located on the ceiling, the lower ones underneath the seat cushion as well as under the table top.





Bed conversion in the Vantana model

## Rearranging the cushions

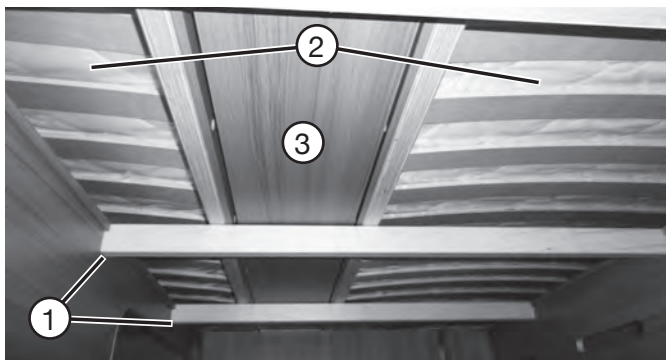
### To convert

- Hook the table ① into the lower guiding rail ② (see 6.3 Tables).
- Turn the driver's seat 180° (see 6.9 Seats in the driver's cab).
- Place the additional cushion ③ on the table.



Single beds at rear end

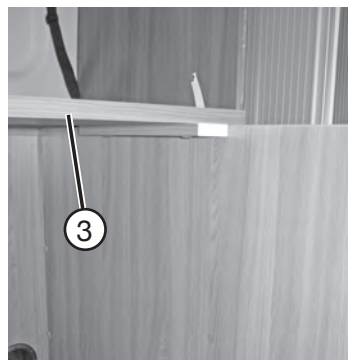
## Individual beds in the rear



Position of the crossbeams, slatted frames and extension board ③

#### To convert beds

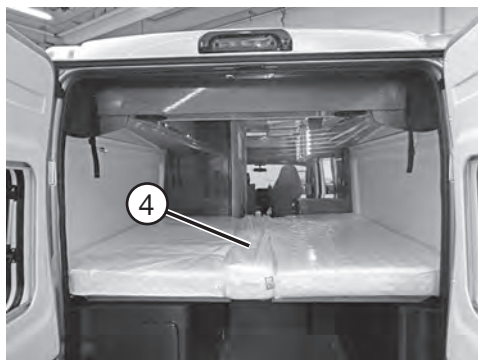
- Place the crossbeams ① in the notches provided for this purpose so that the slatted frames ② have optimal support.
- Then lower the two slatted frames ② onto the crossbeams.



Positioning the extension board

- Place the extension board ③ between the two slatted frames.

There is a bar on the back of the extension board to ensure that the board does not slip. Place it against the step so that it lies in the direction of the front of the vehicle.



**Additional cushion**

- Finally, place the mattresses on the left and right, again taking note of the slant.  
If necessary, place the additional cushion ④ for the extension of the beds between the mattresses, making one large surface for sleeping.



Take care to ensure that small children do not fall out of the beds, especially if the rear doors are open.



**Double bed at rear end**

## **Transversal bed in the rear**



**Positioning the slatted frames**

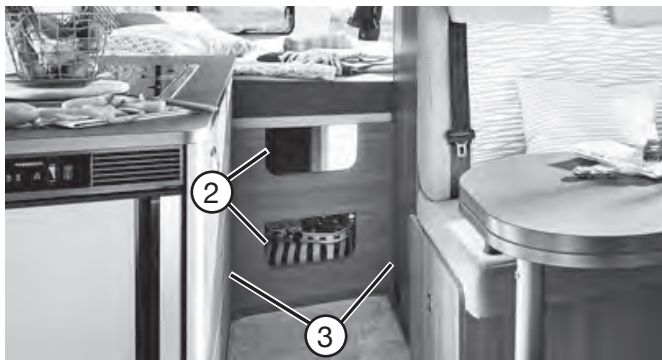
**To convert bed**

- Carefully lower the slatted frame from the wall until it rests on the guide rail.



**Aligning the mattresses**

- Then place the three mattresses lengthwise to the vehicle, whereby the two mattresses with the slants ① are placed on the left and right by the rear doors.



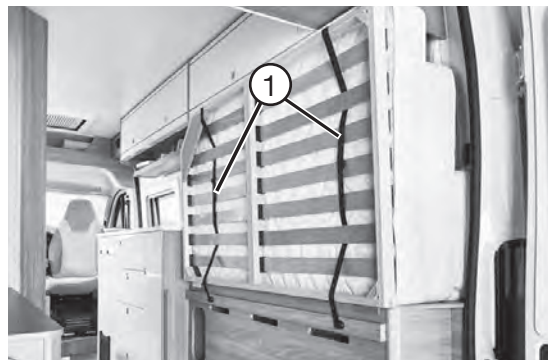
**Climbing assistance**

#### **Climbing into the transversal bed in the rear**

- Climb into the transversal bed in the rear ② through the gaps in the bulkhead partition, taking care to ensure that the two-part bulkhead partition is anchored on both sides in the guide rails ③.



Take care to ensure that small children do not fall out of the beds, especially if the rear doors are open.



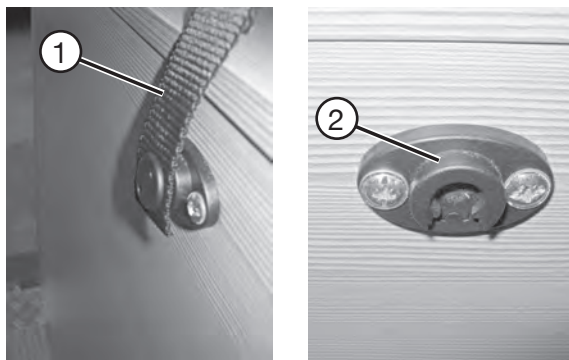
**Ensuring safe transport while driving**

#### **Converting beds into storage space (for individual and transversal beds)**

The bed can be fastened to the side wall to obtain additional storage space in the rear.

#### **Fastening the bed**

- Depending on the model, either lift the slatted frame up against the side wall (single beds) or place the mattresses against the right-hand side wall in the direction of traffic (transversal bed in the rear). Then, for the single beds, place the mattresses on the slatted frame. For the transversal bed in the rear, then lift the slatted frame up against the wall.



#### Retaining strap and counterpart

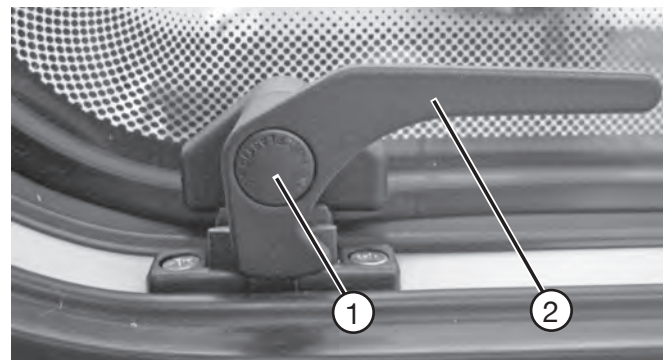
- Lash the mattresses and slatted frames with the fastening straps ①.
- Place the fastening straps over the gap and insert them in the counterpart ② until they lock together.
- Tighten the retaining straps.



During transport, the fastening straps must be securely lashed; they must not hang down.



If nothing is being transported and the straps are not required, they can be removed completely by guiding the ends of the straps out of their corresponding gap.



#### Window catch

### 6.5 Windows



Depending on how the window has been constructed, it has one or more catches with lock buttons ①. To open these window catches, press the lock buttons ①. Various window catches have been fitted in the vehicle.

### Push out windows with locking stays

#### Opening

- Turn all of the window catches ② by 90°.
- Press the window catch outwards until you hear it click. The window will automatically remain in this position. The size of the opening is adjustable in several stages.

### Closing

- Lift the window to the fully open position to unlock the window stay and allow the window to come back down.
- Close the window.
- Turn the catch ② to the original position so that it clasps behind the brackets and pull the pane into the seal.



Windows must be shut while driving. Never use de-icing spray or an ice scraper for the windows in the superstructure, as otherwise the plastic would be damaged.



High humidity may cause a light mist to form within the window panes. This will disappear by itself when the weather is drier.



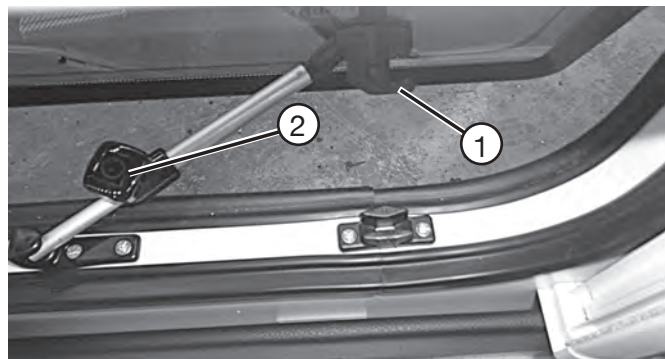
**Closed**



**To air**



Apart from the open and closed positions, the window latches can also be locked in a middle position to allow some airing.



**Fully adjustable window stays**

### Fully adjustable window stays

#### Opening

- Turn all latches ① by 90°.
- Press the window latch outwards with your hand until it is open as far as you would like. Then use your other hand to tighten the turn screw ② until you feel the resistance and the window is held in place.

#### Closing

- Loosen the turn screw ② to allow you to close the window.
- Turn all latches ① back to their original position so that they clasp behind the brackets and pull the pane into the seal.



**Sunshade and insect screen, pleated**

## Sunshade/insect screen

Sunshades and insect screens are integrated in the window from and fully adjustable.

### Closing

- Move the handle for the pleated sunshade ① or the latch for the pleated insect screen ② slowly and evenly to the desired position.

### Opening

- Push the pleated screen up slowly and evenly.

### To combine

- Pull the pleated sunshade down slowly and evenly, then pull the insect screen down to the desired position.

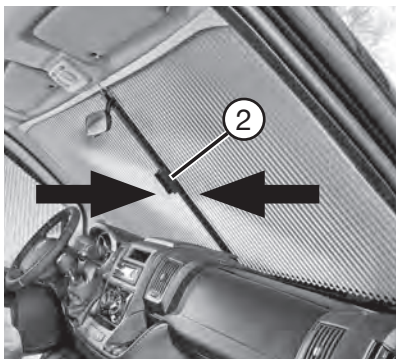


If the vehicle is not in use for a longer period of time, the sun shade must be opened to prevent heat from building up.





Cab blinds



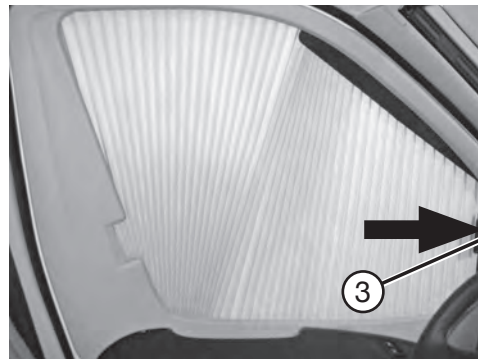
## 6.6 Blind system for driver's cabin \*

The blinds must only be closed when the vehicle is standing and the engine has been turned off. Before starting your journey, you must fold up the entire system and lock it.

Open the blind system whenever you are not using your van, as otherwise it will be permanently damaged by the effects of heat and UV rays.



The blind system must not be used as a sunshade or closed while driving.



Cab door blind

### Front system

- Press the locks ① together to open the locking mechanism.
- Pull the handles ② in the middle together slowly and evenly. The magnetic lock will lock automatically.

### Side windows

- Press the locks ① together to open the locking mechanism.
- Guide the handle ③ slowly and evenly to the catch. The magnetic lock will lock automatically.



Thermal curtain (photo: Optima)

## 6.7 Thermal curtain for driver's cab\*

### To install

- There is a cover flap along the top edge of the curtain that must be pushed between the headliner and the sun visor.
- Fasten the pushbuttons to their counterparts on the B-pillar. This ensures that the curtain is closed tightly and has sufficient support.



Before driving, the thermal curtain must be entirely removed from the driver's cab and stored in the vehicle.



The thermal curtain has a flap that enables you to reach the radio and the ventilation. The flap is closed by means of a magnetic lock and a button to hold it closed.



If there is no frost outside and you are in a bit of a hurry, it is enough to simply set up the curtain and push the cover flap between the headliner and the sun visor. Then there is no need to fasten the sides of the curtain.

## 6.8 Skylight

### Safety instructions

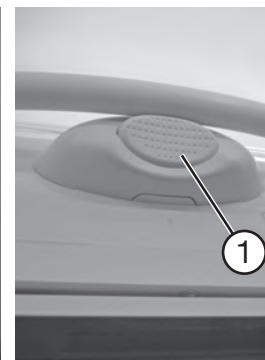


- Never open the skylight in strong winds/rain/hail, etc. or if the temperature outside is below -20°C!
- Never use force to open roof lights when there is frost or snow as the hinges and opening mechanism might break.
- Remove snow, ice or excessive dirt before opening. Ensure there is sufficient room before opening the skylight under trees, in garages, etc.
- Do not stand on the skylight.
- Close and lock the skylight before driving. Open the fly screen and the folding blind (resting position).
- If the sunlight is very strong, pull the blind only 3/4 closed, otherwise there is a danger of heat build-up.

The vents for ventilation must always remain open! Never close or cover up these vents!



Large roof light



Control pin

#### Opening

- This roof light can be opened in the opposite direction to traffic. Press the lock button ① and use the adjusting lever to move the roof light to the desired position.

#### Closing

- Guide the adjusting handle along the guide rail and close the roof light. The top will lock when the lever hooks into place behind the lock button ①.

### Fly screens and blinds (plissés)

Both blinds are fully adjustable by sliding them horizontally from side to side.



Seats

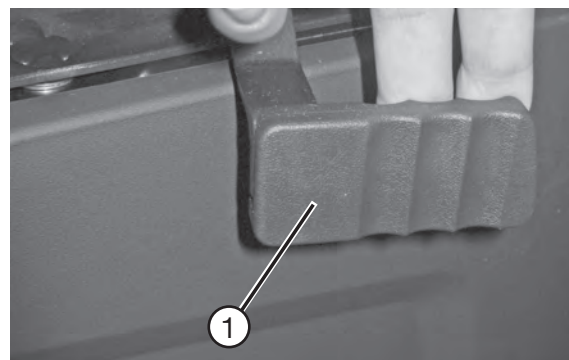
## 6.9 Seats in the driver's cab



All of the vans have rotating driver's and passenger's seats, which can be used as additional chairs in the habitation area. To operate these rotating seats, please refer to the operating instructions for the base vehicle.



- Before driving turn all rotating seats in to face in the driving direction and lock them into place.
- Leave the seats locked to face in the driving direction while driving. Do not rotate them.
- When the vehicle is stationary: when rotating the driver's seat make sure that the handbrake is not released by accident.



Lever for turning the seats

The lever ① for turning the seat is located on the inner edge of the seats in the driver's cab.

### Rotating seats

- Put the armrests up.
- Move the seat to the central position.
- Release the lever on the seat. The seat will be released from the locking position.
- Push the seat belt buckle down to avoid damaging it.
- Rotate the seat to the desired position.



Side seating area in the habitation

## 6.10 Construction of the seats

### Cushion fastenings

Seat cushions are held in place by an anti-slip mat.



Ensure that the seat cushions and backrests are fastened securely and correctly.



Seatbelts

## 6.11 Seatbelts in the van

The seating arrangements are fitted with safety belts.

### Buckling the seatbelt

Do not twist the seatbelt.

- Grasp the tongue and insert it in the lock of the seatbelt until you hear it snap shut.
- Guide the upper part of the seatbelt over your shoulder and diagonally across your chest.
- The lower part of the seatbelt fits across your hips.

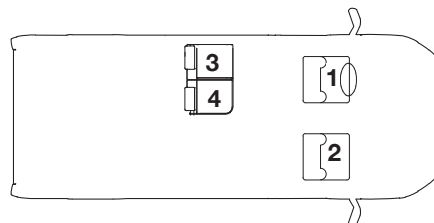
### Unbuckling the seatbelt

- Press the button on the lock of the seatbelt to unlock the tongue.



- Fasten seat belts before driving and keep them fastened while driving.
- Do not damage or jam the seatbelts. Damaged seatbelts should be replaced by an authorised workshop.
- Do not alter the seatbelt fixings; the automatic retraction system or the buckles.
- Only use each seatbelt for one adult. Do not fasten objects and people using only one seatbelt.
- Seatbelts alone are not suitable for persons under 150 cm tall. In such cases use additional restraining equipment.
- Replace seatbelts after an accident.
- Do not twist the seatbelt; it should fit closely to your body.

### 6.12 Overview of the seating arrangements



Seats 1 - 4: may be used while driving.

## Chapter 7: Electrical Installations

### 7.1 Safety instructions

The installation of electrical devices in HOBBY's vans has been carried out in accordance with the valid regulations.



- Do not remove the signs on electrical components giving safety instructions or danger warnings.
- The installation spaces around electrical equipment such as distribution fuse boards, electric power supply, etc., must not be used as additional storage spaces.
- Smoking and naked flames are forbidden when checking electrical equipment.
- Only authorised specialists may work on the electrical system.
- Incorrect handling of the vehicle's electrical system may endanger your own life as well as that of others.
- To connect to an external 230 V mains connection, use only a weather-proof, 3-wire extension cord with a CEE plug and connector.

### 7.2 Elements of the electrical system

#### Advice and instructions

##### Important

- The van's electric system should preferably be inspected within a period of less than three years. If the van is used frequently, an electrical engineering specialist should inspect the electric system every year.
- Any changes to the electrical installations must only be carried out by a professional electrician.
- Disconnect the battery and switch off the 230V mains before carrying out any maintenance work.

##### Batteries

- Please observe the battery manufacturer's operating instructions.
- The acid in the battery is poisonous and corrosive. Avoid contact with eyes and skin.
- The completely discharged battery must be recharged for at least 24 hours. The battery may be damaged if it has been discharged for more than 8 weeks.
- Avoid letting the battery fully discharge (go flat), as otherwise the performance and lifetime of the battery will be significantly reduced.

- Check the level of the battery fluid regularly (acid batteries); AGM-batteries require no maintenance, but must be continuously recharged.
- Check that the battery clamps are secure and remove any layers of oxide.
- Turn off the battery circuit breaker (red key) if the ancillary battery is not being used for a longer period of time (2 weeks or more). The standby current used continuously by some electrical devices discharges the habitation battery. Even if the battery circuit breaker (red key) is turned off, the battery can still be charged by the battery charger (trickle charging).
- Should the battery be removed, isolate the positive terminal (to prevent short circuits when turning on the motor).

### Battery charger

- The charge operates by means of a sensor or using IU<sub>1</sub> U<sub>0</sub> charging technology, provided the sensor has not been calibrated or the CIBUS system is offline. Please refer to **Chapter 7.3, subsection "Battery Management"**, to calibrate the sensor.
- In the case of misuse the guarantee and manufacturer's liability will no longer apply.
- The air vents in the FIAT dashboard must not be covered up or closed. Ensure that there is sufficient ventilation.

### Tank probes

The probe with rods measures the contents of the fresh and waste water tanks.

- To prevent scaling, never let the water stand too long in the tanks, especially in the waste and waste water tank.
- Flush the tanks regularly.

### 230V automatic circuit breaker with an earth leakage circuit breaker

The 230V automatic circuit breaker supplies and protects the 230V devices.

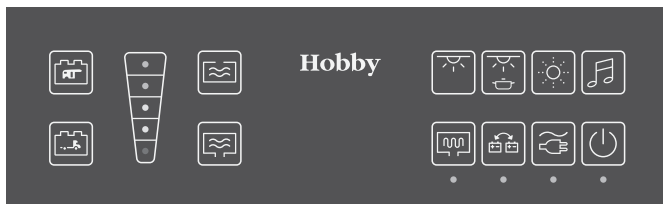
- To switch off the 230V power supply in the entire system, set the 230V automatic circuit breaker to "0" (OFF).

### Fuses

- Only replace defective fuses after the cause of the defect has been remedied by a professional electrician.
- The new fuse must have the same amperage as the old one.



### 7.3 Standard control panel (Vantana Ontour and Vantana De Luxe)



The standard control panel is located inside the van above the entrance door. Use this control panel to control the lights or to display various filling levels and the status of the batteries.

#### Display icons on the standard control panel



#### Charging the leisure battery

This icon indicates whether the leisure battery is being charged while driving. If the light under the icon is green, the battery is being charged.



#### Radio/SAT-nav device

- Briefly press the button to switch the radio/SAT-nav on and off.



#### Electric waste water tank heating system\*

- Briefly press the button to switch on the electric waste water tank heating system. If the light under the icon is green, the electric waste water tank heating system has been activated.



#### Power plug function

The light under this icon turns green as soon as the vehicle has been hooked up to the 230V mains supply.

## Display buttons on the standard control panel

The following display buttons give information on the filling levels of the water tanks as well as the voltage of the ancillary and starter batteries. The three traffic-light colours are used to give explicit information. Press the desired button to let the corresponding display light up.



**Voltage of the leisure battery**



**Voltage of the engine battery**



**Fill level of the fresh water tank**



**Fill level of the waste water tank**

## Battery display/Fill level of the fresh water tank



**High voltage / full level**  
(the red, two yellow and one to two green lights are on)

**Half voltage / half level**  
(the red and one to two yellow lights are on)

**Low voltage / low fill level**  
(the red light is on)

## Fill level of the waste water tank



**Full level**  
(two green, two yellow and the red light are on)

**Half full level**  
(two green and one to two yellow lights are on)

**Low fill level**  
(one to two green lights are on)



Please refer to the descriptions for the TFT control panel for the functions of the master switch as well as the lighting. During the current season, the programme was switched to the standard control panel. The first series produced have been fitted with a TFT Light Control Panel, which has a limited number of functions (see Chapter 7.3 TFT Control Panel).

## TFT-Controlpanel (Vantana Premium)



The system consists of control electronics, a TFT control panel with a keypad and several manufacturers own control panels for their appliances. It enables you to operate the different lamps and several 230 V devices. Furthermore, various kinds of information and measured values are shown on the TFT display.

### Key icons on the control panels



#### Functions of the main switch

- Once the system is in operation, press the main switch briefly to turn all of the lights off. All 12V steady electrical devices (e.g. water pump, refrigerator, heating and entrance step<sup>\*</sup>) will remain activated. The devices that were previously switched on are stored in the system; pressing on the main switch

reactivates them. This also resets the degree to which those lights currently dimmed can be altered.

- Pressing the main switch for at least four seconds while the system is switched on will turn off not only the currently active devices, but also the entire 12 V system (this also affects the toilet flush and the water pump). The current operating settings will not be saved.



If the vehicle's motor is running, the absorber refrigerator<sup>\*</sup> will operate automatically on 12V, i.e. it is not necessary to press the main switch on the Hobby control panel. The selector switch for the refrigerator must be set to 12V operation. All other 12V electrical devices will only operate on the habitation battery if the main switch has been activated. (Exceptions: the heating system, Ice Ex<sup>\*</sup>, DuoControl remote control<sup>\*</sup>, gas alarm<sup>\*</sup>, electric entrance step<sup>\*</sup>, electric tank heating system<sup>\*</sup>, HobbyConnect<sup>\*</sup> and electric ignition for gas cooker.)

In general, power for the compressor refrigerators is supplied by the leisure battery (12V), irrespective of whether they run in stationary operation (self-sufficiently), stationary operation (external 230V mains operation) or while driving (vehicle's motor is ON).

The LED on the standard control panel lights up green beneath the key when the main switch has been activated.



### Wall lights / lighting in the dinette



### Ceiling Lamp

- Briefly press the corresponding button to switch each lamp on and off. Press longer on the button to regulate how brightly you want the lights to shine. The brightness you set will be saved; when the lights are switched on again, the brightness you originally set will also be switched on again. If the system's power supply is interrupted, the wall light will shine on full the first time you switch it on. If the intensity has been reduced to a minimum by dimming the lights, the lamp will switch itself off. Since this setting is saved, the dimmer must be reset to the brightest level before the lamp will shine again. For technical reasons, if the lamp is set to the very lowest dimmed level, the light may flicker. If this bothers you, please increase the brightness of the light.



The wall lamps themselves must be switched on before they can be controlled by using the control panel.



### Memory buttons

- This key is used to save and recall the setting of individual lights. Press briefly on the desired memory button to recall the last saved setting of all switchable 12 V lights. Press

longer on this button to save the setting of a light. These memory buttons are not used to save the settings of the 230 V electrical devices (e.g. hot-air heating).



### Awning light\* (optional for Ontour series)

- Press this button to switch the entrance light on and off. It is not possible to switch this light on when the engine is running. The light will turn off automatically when the engine is started.



The awning light must be switched off when the van is on the road.



### Kitchen light

- Briefly press the button to switch the kitchen lamps on and off.



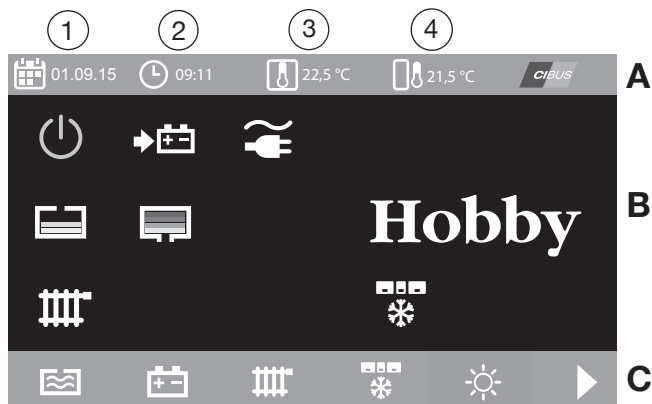
### LED ambient lighting

- Briefly press the button to switch on the indirect lighting in the living area.



This key is not assigned in the Ontour series.

## Main menu on the TFT control panel



### Fixed header A

Permanently displays:

- ① date
- ② time
- ③ inside temperature
- ④ outside temperature

## Main display B

The current status (on or off) and values for the fitted appliances can be seen as icons on this screen.

### Stand-by Mode

- The display dims slightly if no function has been carried out for a period of one minute.
- In the newer update versions, the display switches itself off and is black if nothing has been pressed for a period of 10 minutes.



### On/Off switch for power supply

If this icon is shown in green, the 12V sockets and the water pump are activated. If the icon is white, the light control has been deactivated. If the main switch is pressed for approx. 4 seconds, the 12V system switches itself off and the icon appears in orange.



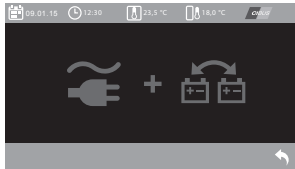
### 230 Volt

Shows that the van is connected to the mains.



### Alternator used for charging

The engine has been switched on; the habitation and starter batteries are connected in parallel.



### Warning: motor and mains connection

This warning will appear 3 times and must be acknowledged. The warning will not appear again when the defect has been fixed. Otherwise, the warning will continue to be shown until the vehicle has been switched off or the mains hook up lead has been removed.



### Battery management

red = malfunction



### Battery being charged



### Battery being discharged



### Truma heating

(depending on what has been fitted to the van)

red = malfunction, green = in operation



The separate, manufacturer's own control panel for the Truma heating system must be switched on so that the TFT control panel recognizes the device.



### Compressor refrigerator



white = switched off

green = switched on

red = malfunction



### AUX\* Ice-Ex (only with optional extra DuoControl)

If this icon is shown in green, the function being looked at is operating.



### Fresh Water Tank

red = empty



### Waste water tank

red = full



### Electric waste water tank heating\*

If this icon is shown in green, the function being looked at is operating.



### **Air-conditioning system\***

green = in operation

red = malfunction

#### **Current mode:**



**Cooling**



**Heating**



**Automatic**



**Air circulation**



### **Satellite System\***

green = in operation; satellite has been found

orange = antenna is turning



### **HOBBY Connect\***

green = in operation; active connection

orange = system is starting up or shutting down

## **Soft key menu bar C**

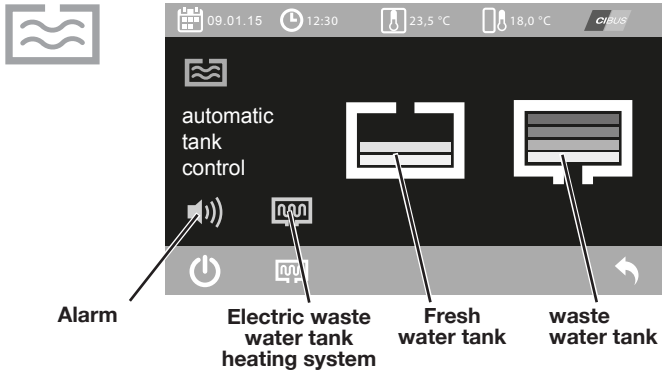
This is used to access the individual menus of the separate appliances or systems fitted.

### **Soft keys**

The “soft keys” are used to carry out the commands displayed in the lower menu bar (C). For example, they enable access to submenus, increase or reduce the values shown, or represent the Return button (“Back” function).

### **Control knob**

Like the “soft keys”, the menu selection wheel enables easy navigation between the individual menus. Turn the wheel to select the corresponding menu item or display value shown to the left, or to increase or reduce values. Press the wheel in to jump to submenus or confirm a value that has been changed. Selected functions / icons are displayed in yellow. Values that require changing are highlighted in white.



### Fresh and waste water tanks

The filling levels of the fresh and waste water tanks can be seen here. The alarm can be activated (green) above the left soft key (On/Off icon). If the alarm has been activated, a beep will go off when the tank is being filled. If the alarm has been activated, a beep will go off when the fresh water tank is being filled. These beeps will be sent at increasingly shorter intervals while the fresh water tank is filling up. The filling level of both tanks will be automatically updated on the control panel every few seconds.

Exit this menu by using the “Back” function; otherwise, after one hour, it will automatically switch back to the main menu on the control panel.

### Electric waste water tank heating system\*

As an option, your van can be fitted with an electric waste water tank heating system. The heating function is activated and deactivated by means of the soft key.

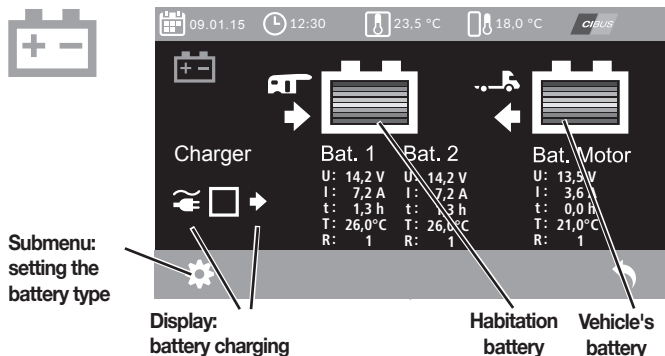
This icon is displayed in green in the submenu when the function is activated. The heating system will then begin to operate automatically when:

- the temperature outside drops below 5° C,
- and either the 230V mains connection has been hooked up or the engine has been started.



The icon on the start display will only turn green when the factors listed above apply and the heating system has begun to operate.





### Battery management

The current status of the batteries is displayed in the battery menu:

- Bat. 1 = habitation battery
- Bat. Mot. = vehicle's battery (starter battery)
- Bat. 2 = additional battery\* (displayed only if the mobile home has been equipped with an additional battery)

The charging status is shown in the battery icon; the example shows a fully charged battery.

**U** = current charging voltage

**I** = current charging/discharge current

**t** = remaining time to charge/operate the battery in hours

**T** = battery temperature

**R** = calibration check of the battery sensor



The temperature of the battery must not exceed 50° C. A warning message will be sent if the temperature exceeds 50° C and the battery will be shown in red in the main menu on the control panel. If the battery is overheated, it cannot be charged. Should this warning occur repeatedly, the van must be taken to an authorised specialist.

The value "R" shows the calibration check. If "1" is output, the sensor will be calibrated (target state). If "0" is output, the measured values may deviate slightly and the sensor should be recalibrated.

Normally, calibration is carried out automatically, whereby neither the charging nor the discharge current may be more than 150mA.

### Manually calibrating the sensor

The system can be calibrated manually if no electrical devices have been switched on in 12V operation. Turning the battery circuit breaker switches off the electronics in the habitation (see item: battery circuit breaker). Now the sensor can cali-

brate itself. This process takes approx. three hours. If the battery circuit breaker is then switched on again, a value of “1” should be shown on the display.



During calibration, the vehicle must not be hooked up to the 230V mains (the charger must not charge the battery during calibration). Furthermore, the vehicle must not be started while the sensor for the starter battery is being calibrated.

### Charger (charging the battery)



Battery is charged when the charger is connected to the 230V mains.

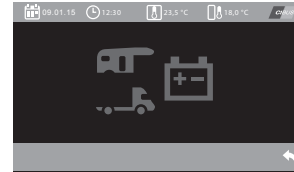


Battery is charged via the alternator. Motor has been started. Battery charger is not activated.



If the icons for the “Charger” appear, the van is connected to a 230V mains connection and the battery charger was recognised: the battery will be charged. Please note: the vehicle must not be started while the sensor for the starter battery is being calibrated.

### Error messages

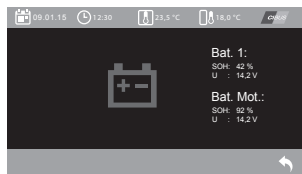


#### Warning message: undervoltage

This warning appears when a voltage of 10.8V or less is measured for a battery for a duration of at least 3 minutes.

The icon for the battery, habitation or starter battery in question appears in the menu.

The message can be acknowledged; the battery should be charged immediately.



### Warning message: age of battery (SoH = State of Health)

This warning appears when the original capacity of a battery drops to a value of less than 50%.

To enable this message to appear, the battery sensors must be calibrated.

The message can be acknowledged; the battery in question should be replaced.



### Setting the battery type

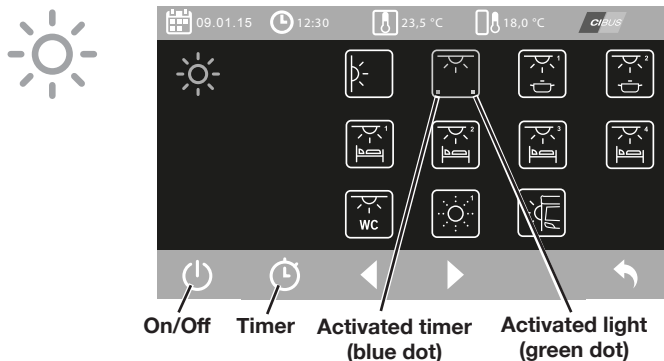
The type and capacity of the batteries have been set by the manufacturer. These settings must be changed when the type of battery is changed.

Use the arrow keys or the control knob to select the desired value. Increase or decrease it by means of the +/- functions. If the control knob is used to change a value, the new value must be confirmed by pressing on the control knob.



If the set values do not match those of the battery that was installed, incorrect values will be displayed in the battery management. Setting the type of battery has an effect on the charging behaviour; therefore, this must be set correctly.

Exit this menu by using the “Back” function; otherwise, after one minute, it will automatically switch back to the main menu on the control panel.



### Lighting system

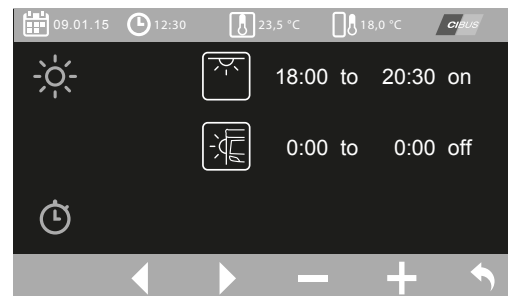
Select the desired light in the menu for the lighting system by means of the Menu selection wheel or the arrow functions (display: yellow). Press on the Menu selection wheel or the left soft key to switch the corresponding light on or off (activated lights are displayed in green).



The lights for the bed 3 and bed 4 have not been assigned.

Access the submenu for programming the timer by means of the timer function. Only the ceiling light (top row) and the awning light (bottom row) can be operated using the timer.

**blue dot = timer activated**  
**green dot = Light switched on**



### Programming the timer

Set the desired time by using the arrow keys or the Menu selection wheel and press the “On/Off” function or the Menu selection wheel to select it. Turn the Menu selection wheel or use the “+/-” functions to set the time. Press the Menu selection wheel again or use the “On/Off” function to confirm the set time.

### Activating/deactivating the timer

The timer will only be activated if the function to the right is changed from “Off” to “On” (the way to do this is identical to programming the timer).

Deactivate the timer by setting the function from “On” back to “Off”.



The selected light to be switched on by the timer is indicated by a blue dot on the corresponding button.

Exit this menu by using the “Back” function; otherwise, after one minute, it will automatically switch back to the main menu on the control panel.



### Menu for heating system

The Truma Combi heating system is part of the van's standard equipment. As an optional extra, this can be replaced by a Truma Combi e-heating system (can be operated electrically).

The functions on the TFT control panel are practically identical for both options. The standard Combi heating system is described below. Differences between this and the Combi e-heating system are indicated.



The TFT control panel can only be used to control the basic functions of the heating system. To use enhanced functions, the system must be controlled by the separate, manufacturer's own control panel.

Green icons indicate the functions that are operating.

The desired room temperature (in ° C), short-term increase in the amount of hot water for taking a shower (in ° C) and the type of operation (gas/electric\*) are displayed in the menu for the Alde hot water heating system. The lower menu icon is shown in green when the heating system is in operation.

Next to this icon, the value

**ON** = on or

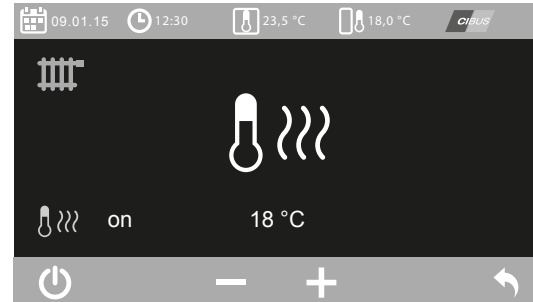
**OFF**= heating system is not in operation (white icon) is shown.

The heating system is activated or deactivated using the “On/Off” function in menu bar C.



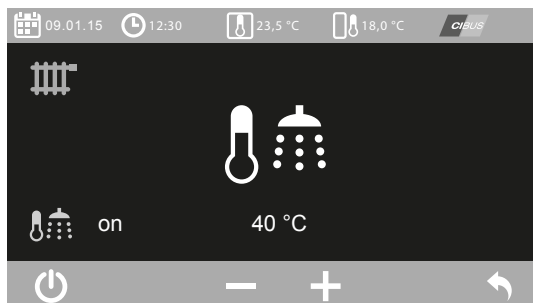
If the “Off” function is used to switch off the heating, the settings that have been set will remain saved. If the “On” function is used to switch the heating back on, the functions last used will automatically reactivate themselves.

The icons for temperature and performance level as well as the info icon shown in menu bar C lead to further submenus by means of the soft keys or using the Menu selection wheel to make a selection.



### Setting the desired room temperature

In steps of 1° C from +5° C to +30° C



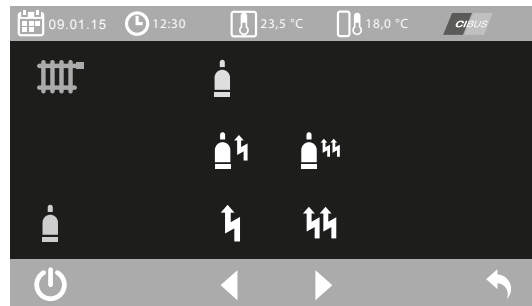
### Short-term increase in the amount of hot water

Temporarily increases the hot water temperature from 40° C to 60° C if there is an increase in hot water consumption.



The Alde hot water heating system can be increased from 50° C to 65° C.

To change the settings, use the Menu selection wheel to select the desired temperature (press on the wheel to highlight the value in yellow, enabling it to be changed). Use the “+/-” icons or turn the Menu selection wheel to select the desired temperature. Press the wheel to confirm the changed setting. Use the “On/Off” function to switch the hot-water heater on and off.



The menu shown above can only be selected for the Truma Combi e-heating system:

### Type of operation

Gas, mixed operation (gas+electric) or electric can be selected. If mixed operation or electric operation have been selected, the desired power setting must also be selected.

**Truma:** 1 lightning bolt = 0,9kW,  
2 lightning bolt = 1,8kW

Use the arrow (menu bar C) or turn the Menu selection wheel to select the desired type of operation (highlighted in yellow). Then use the “On/Off” function or turn the Menu selection wheel to activate your selection.



Please refer also to the instructions of the heating system in Chapter **10.5 Built-in-devices**.



#### Info menu

Information on the device manufacturer is shown here.



Corresponding data has been stored for the Alde hot water heating system.

The submenus shift to the main menu by means of the “Back” function. The main menu shifts to the main menu on the control panel by means of the “Back” function. After one minute, all menus automatically shift to the main menu on the control panel.





### Compressor refrigerator (SlimLine)

The main menu of the refrigerator shows the current type of operation and the temperature that has been set. The lower menu icon is shown in green when the refrigerator has been switched on.

Next to this icon, menu bar






**On** = on or

**Off** = refrigerator is not in operation (white icon) is shown.

The refrigerator is activated or deactivated using the “On/Off” function on menu bar C.

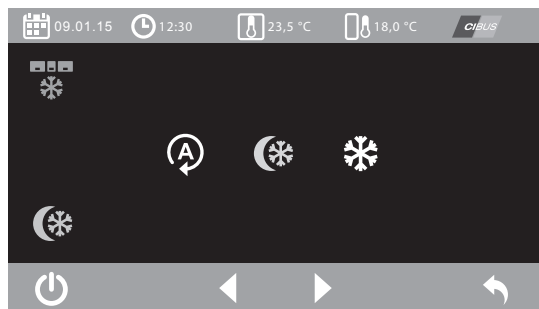
The icons shown on menu bar C lead to further submenus by means of the soft keys or setting the control knob to a selection.

#### Menu bar C




-  **Operation On / Off**
-  **Selecting the type of operation**
-  **Setting the temperature**
-  **Information page**
-  **Back**






The absorber refrigerator\* is not displayed on the TFT control panel.



### Display

-  Automatic
-  Night mode
-  Super cool

### Menu bar C

-  Operation ON / OFF
-  Selecting the type of operation
-  Back



### Selecting the type of operation

Use the arrow keys above the softkeys or turn the control knob to select the type of operation desired.

The selected type of operation will be highlighted in yellow and must be confirmed by pressing on the control knob.

The current type of operation is shown on the bottom left of the display and can be switched on and off by means of the "On/Off" function. The function that has been switched on will be highlighted in green.



Refrigerator temperature level

## Display



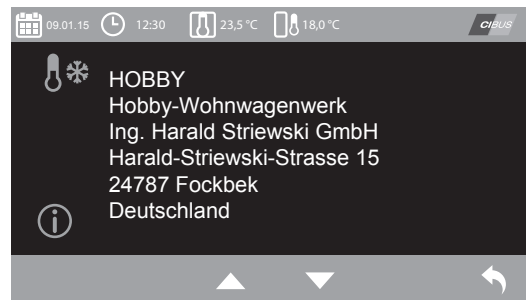
Set temperature level

Adjustable temperature  
levels 1 - 5

## Menu bar C

Setting the tempe-  
rature level

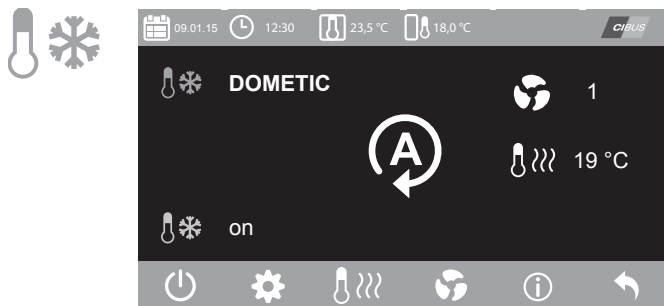
Back



## Info menu

Information on the device manufacturer is shown here.

The submenus shift to the main menu by means of the “Back” function. The main menu shifts to the main menu on the control panel by means of the “Back” function. After one minute, all menus automatically shift to the main menu on the control panel.



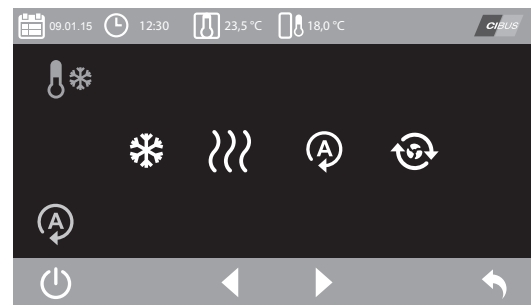
### DOMETIC\* air-conditioning system

The selected type of operation, fan level and desired room temperature are displayed in the menu for the Dometic air-conditioning system. The lower menu icon is shown in green when the air-conditioning system is in operation.





Above, menu bar

**ON** = on or

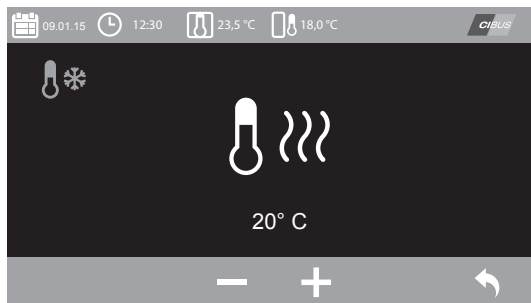
**OFF** = air-conditioning system is not in operation (white icon) is shown.



### Submenu: Selecting the type of operation

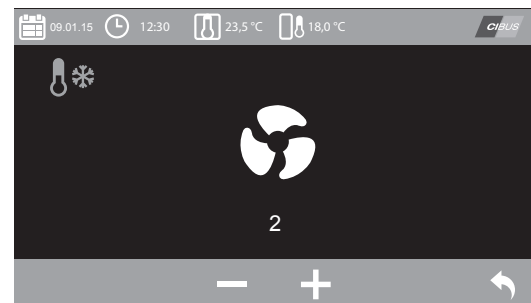
-  **cooling**
-  **heating**
-  **automatic mode**
-  **air circulation mode**

The type of operation can be changed using the “+/-” soft keys on menu bar C or by turning the Menu selection wheel. The new selection must be confirmed by pressing the Menu selection wheel or by means of the “On/Off” soft key.



### Setting the temperature

The desired temperature can be set here. This is not possible in air circulation mode, because neither the cooling nor the heating function are then active.



### Setting the fan speed

Set the desired fan speed here (levels 1-3 and maximum ventilation). When in automatic mode, the ventilation will also be regulated automatically, i.e. it is then not possible to change the setting manually.

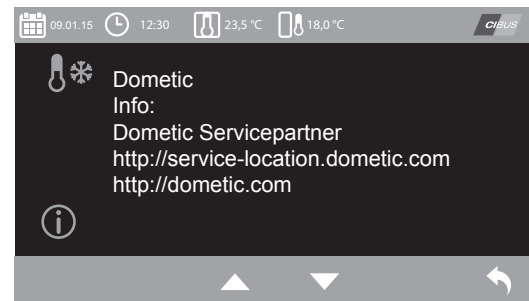


The fan level can only be selected manually for “Cooling” and “Air circulation”. For all other types of operation, the roof air conditioning system controls the fan automatically.

The settings can be changed using the “+/-” soft keys on menu bar C or by turning the Menu selection wheel. The new setting is automatically applied after exiting from the submenu.



Please also observe the instructions in **10.5 Rooftop Air Conditioning**.



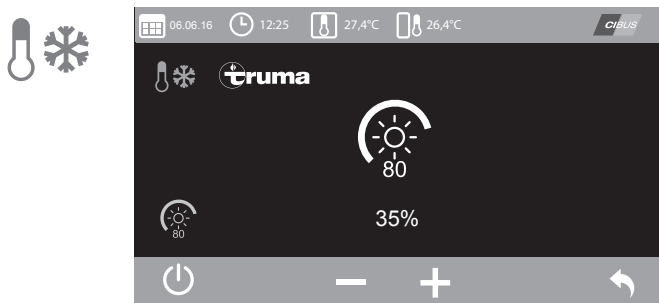
#### Info menu

Information on the device manufacturer is shown here.

The submenus shift to the main menu by means of the “Back” function. The main menu shifts to the main menu on the control panel by means of the “Back” function. After one minute, all menus automatically shift to the main menu on the control panel.



The aforementioned functions are only available for air conditioning systems that are CI bus compatible.



### TRUMA\* air-conditioning system

If a TRUMA air-conditioning system is subsequently fitted, it is also possible to select the submenu for adjusting the lighting.

Increasing or reducing the setting by means of the “+/-” function or the Menu selection wheel changes the brightness of the lighting integrated in the air-conditioning system. Press the Menu selection wheel or use the “On/Off” function (left soft key) to confirm the new setting.

Exit this menu by using the “Back” function; otherwise, after one minute, it will automatically switch back to the main menu on the control panel.



### Radio

Use the “On/Off” function to switch the radio on and off. If the radio is on, the icon is shown in green.

Exit this menu by using the “Back” function; otherwise, after one minute, it will automatically switch back to the main menu on the control panel.



### AUX (To control the DuoControl incl. Ice-Ex\*)

AUX is an external relay output that switches the Ice-Ex cartridge in the gas bottle box on and off.



The Ice-Ex cartridge must always be switched on manually using the TFT control panel.



If the van has been equipped with a remote indicator for DuoControl, the Ice-Ex cartridge can only be switched on and off via the remote control. It does not appear on the TFT control panel.



Display: current status

### Satellite system KATHREIN\*

The current status of the satellite system is displayed on the bottom left of the main menu for the satellite system:

#### Current status

- parked:** antenna in park position (white icon)
- parking:** antenna in park position (orange icon)
- search:** antenna is set up and searches for satellite (orange icon)
- optimize:** antenna ready for operation, but optimised reception (green icon)
- on:** antenna is set up (green icon)
- idle:** emergency stop function has been pressed (white icon)



Next to the icon in the centre, the following is displayed on the right:



**Position (Where the vehicle is physical)**



**Selected satellite**

**Functions of menu bar C:**



**Setting antenna up / in park position  
(also via soft key or control knob)**



**Emergency stop function, set-up or park procedure is aborted**



If a satellite update appears on the display, click on this softkey to confirm it.



**Submenu: set position**



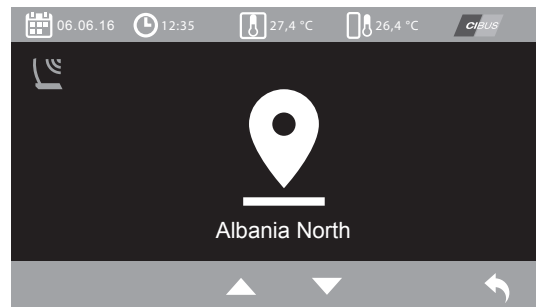
**Submenu: set satellite**



**Submenu: information on device manufacturer**



**Back function**



**Submenu: set position**

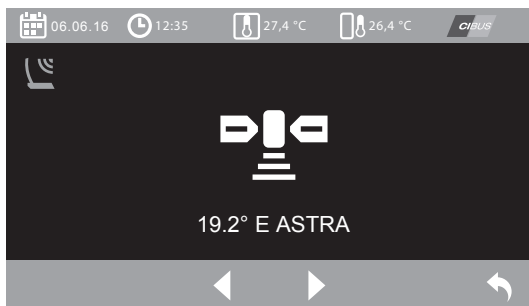
Countries that can be selected have been stored in the country list; regions that can be set are: North / Middle / South.



**Setting the country combined with the region**



**Back**



### Submenu: set satellite

Satellites that can be selected have been stored in the satellite list.



### Setting the satellite



**Back**



When exiting the menu, the antenna will automatically be set up and a search will begin for the indicated satellite.



### Info menu

Information on the device manufacturer is shown here.

## Error codes

Error code	Error name	Causes	To eliminate
01	No connection to turnable satellite dish	Defective coaxial cable or plug connection No power supply for turnable satellite dish Coaxial connections for input and output	A dealer can replace the cable or plug.  Check whether the battery circuit breaker has been switched on, the battery is discharged or the 230V mains voltage is connected.  The red master cable must be plugged into the “Input” socket.
02	Satellite not found	None unobstructed view to the satellite The van is located outside the satellite's footprint Heavy clouds	If possible, change the location or remove whatever obstructs the view. Change the search level.  Select another satellite, e.g. “Hotbird” instead of “Astra” in northern and eastern Europe.  During severe thunderstorms and periods of very dense clouds, the satellite cannot screen through the cloud cover.
03	Ignition signal supplied	The ignition signal ensures that the turnable satellite dish is retracted	Switch the ignition off.
04	Mechanical stop	The dish has hit an obstruction or is frozen. Not enough power to operate the servomotors. Antenna has lost its position.	Remove the obstruction; remove snow and ice from the dish; restart the system.  Switch off other electrical devices. Charge the battery.  Please have the satellite dish checked by a Hobby dealer and let them install any updates.
05	On-board voltage too low	Electrical devices that consume a great deal of energy reduce the total output.	Charge the battery and connect the 230V mains connection. Possibly switch off those devices (such as electric heating elements) that consume a great deal of energy.
06	Temperature of the system is too high	e.g. mechanical overload, environmental influences	Do not operate the antenna; allow the system to cool down.

Error code	Error name	Causes	To eliminate
07	No search transponder available.	Incorrect or manually modified channel list	Have the correct list installed. Your dealer can do this.
08	Revolving dish used otherwise	Antenna cannot be controlled by CI BUS, because another device is using the antenna “exclusively” (e.g. streaming).	Stop using smartphone/tablet to operate streaming.
09	Update failed		

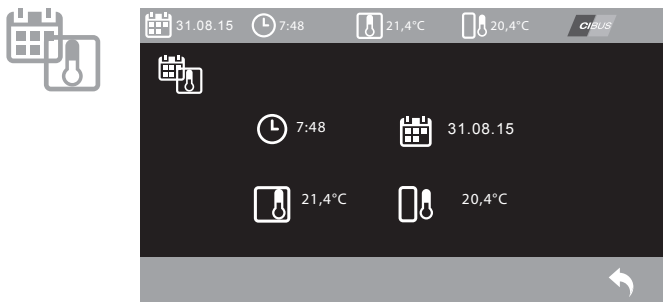
If the “Error” status is shown, the error code must be analysed. Should these errors occur, the codes will appear in the display on the Kathrein control system. Please note that due to these errors, the satellite dish may in some cases switch itself off to prevent damage to the device. If possible, remove the source of trouble before restarting the system. Never attempt to open or modify the equipment - this must be done by an authorised Hobby dealer!

Problem	Cause	Solution
<b>Long search times</b>	The system is searching in the wrong region.	<b>Set the region in which the van is located (see Chap. 7, submenu: Set position).</b>
<b>Satellite not found/ no reception</b>	The mobile home is located outside the satellite's footprint.	Select another satellite.
<b>Uncontrolled performance of the turnable satellite dish</b>	The turnable satellite dish has “lost” the satellite and cannot find it again.	Reset the system. The reset button is located on the back of the CAP 650.

These problems are not errors that will cause the system to stop and send an error message. Therefore, they have no error code.







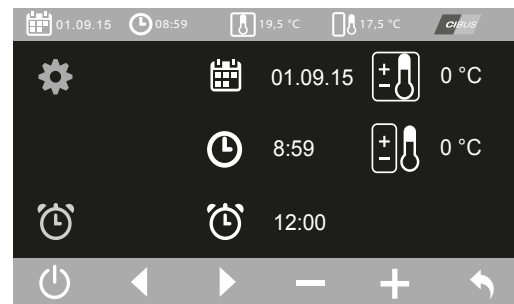
Errors must be acknowledged. This can be done using the Kathrein control device or via the emergency stop function in the menu for the satellite system on the TFT control panel.



### Displaying the data in the fixed header A

This menu gives an overview of the data in the fixed header A. It is only possible to exit this menu by using the “Back” function; it does not automatically switch back to the main menu on the control panel.

-  **date**
-  **time**
-  **inside temperature**
-  **outside temperature**



### Settings menu (for data in the fixed header A)

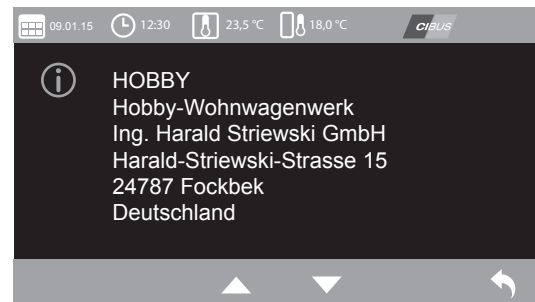
The date and time can be set in the Settings menu. Use the Menu selection wheel or the left and right arrows to reach the desired value. Press the wheel; it is then possible to change the values by turning the knob (right = increase value; left = decrease value) or by using the “+/-” function. Press the wheel to confirm the changed value. Only then will it be saved.

The wake-up time is set and confirmed in the same way. Use the “On/Off” function to activate the alarm clock. The activated alarm clock is shown in green.

It is also possible to calibrate the indoor and outdoor temperatures shown, as temperature effects on the sensors may lead to a deviation between the temperature displayed and the actual temperature.

The temperature display can be changed by a maximum of +/- 12° C.

Exit this menu by using the “Back” function; otherwise, after one minute, it will automatically switch back to the main menu on the control panel.

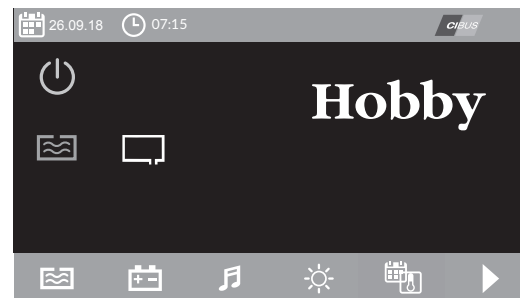


#### Info menu on the TFT control panel

Information on the device manufacturer is shown here.

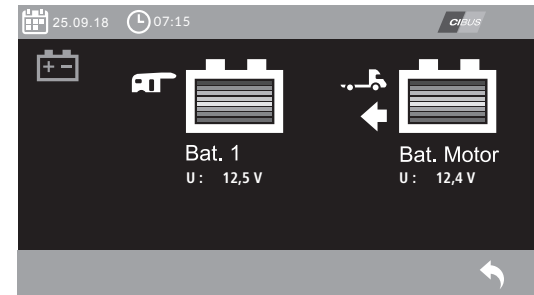
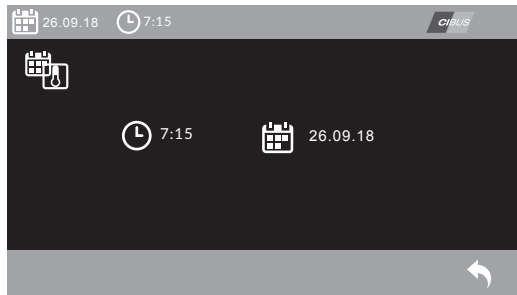
## TFT-Light-Panel (Vantana Ontour / Vantana De Luxe)

Due to a special software, the TFT Light Control Panel with limited functions differs from the TFT Control Panel (installed in the Vantana Premium series) as follows:



### 1. Inside and outside temperature display

As there is no temperature sensor, the inside and outside temperatures are greyed out in the header and submenu of the TFT Control Panel.



## 2. Battery Management

For battery management, the TFT Control Panel with limited functions displays only the voltage and resultant charge levels for the leisure and engine batteries.





### 7.3.1 HobbyConnect\*

**HobbyConnect** enables most CIBUS-enabled components in the van to be operated via mobile devices (smartphone/tablet/PC/notebook). At present, the “**MyHobby**” app is required for this.

Normally, the **MyHobby app** is free of charge and available as a demo version even without the HobbyConnect system.



The components in your own van are not connected to the app via the demo version.



- The MyHobby app is only available for iOS or Android operating systems.
- The MyHobby app is constantly being further developed and updated. Therefore, new In-App functions are on offer from time to time.
- An HTML version (access to the vehicle via Internet) is currently being developed.
- It is possible to access HTML using the following link:  
**<https://admin.myhobby.nu/mobile>**

There must be a **HobbyConnect system** (i.e. an installed Connect Box with an integrated SIM card) in the van in order to establish a connection between the CIBUS-enabled components in the van and the app.

The connection between the van and the app can only be established if the Connect Box has been activated on the server and assigned to the corresponding vehicle. In order to activate the Connect Box, the access code (MyHobby Code) must be entered in the **MyHobby app**.



Upon request by the customer, the responsible dealer will activate the Connect Box. The customer will then receive the access code via e-mail or the appropriate key card will be handed over by the dealer.



The Connect Box automatically connects itself to the server via the SIM card as soon as the Box has been connected to the electric system. Only connect the Box to the on-board equipment just before using the HobbyConnect system.

The SIM card includes a 12-month Telenor **telephone contract** (for M2M data transmission via the Internet). The contractual period begins as soon as the system has been connected to the server via the SIM card. Before the term is over, the MyHobby app will call on the user to purchase an extension for the telephone contract. After 12 months, the SIM card will be deactivated if no extension has been purchased. If the existing contract is extended, it is then possible to use the HobbyConnect system for a further 12 months. If the subscription runs out, the SIM card

will be deactivated. To reactivate the HobbyConnect system, the provider will send an e-mail requesting payment.



- The telephone contract runs for 12 months. Contract extensions must be purchased.
- The SIM card no longer works after the renewal period has expired.
- Special m2m SIM cards are then required. These can be obtained from the Hobby dealer.
- Your cell phone provider may charge extra if you use an Internet connection abroad.



- If the contract is not extended, the components can only be operated by remote control via Bluetooth when standing in the near vicinity.
- To enable data to be transferred, the camper must be located within the group of countries shown in hatched lines on the map on **page 114**.

### General information on using the HobbyConnect system

Access data and user settings are administered via the Hobby dealer.

- Contact your dealer if your user data should change.
- Treat your access code (MyHobby Code) with the strictest confidence. Anyone who has this access code can take over the remote control of the connected components. Report the loss of the access code immediately to your dealer.
- Make note of any changes in the user settings and user accounts when purchasing or selling a vehicle that has been equipped with the HobbyConnect system.
- Please note that your device must be able to send and receive mobile data. If this function has been deactivated or you do not have a mobile Internet connection, the HobbyConnect system can only be controlled via Bluetooth.



### Connect Box

#### Default settings

First, please check whether the installed Hobby Connect Box is connected to the micro USB connection and supplied with power.

The USB power supply cable must be connected to the Hobby Connect Box. Blinking red and green LED lights at the top left indicate whether or not the box is working.



### Key card

The Hobby **Connect** Box code for connecting the app to the vehicle can be found in the enclosed documents.



Do not confuse the serial number with the Hobby code!

If no Hobby code has been noted on the card, please contact your Hobby dealer, who will send you the Hobby code via e-mail.  
**(Please refer to the MyHobby Code section.)**



Should you not be able to log in with your access data, this may be because your account has not yet been activated. In this case, please speak to your Hobby dealer.



## Using the “MyHobby” app



Descriptions and illustrations may vary, depending on the operating system of the mobile device.

Install the **MyHobby app** on your device and then start the app.



### III. 1

Start screen when accessing the app if a user has not yet been registered.

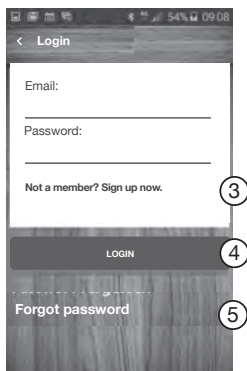
Use “Connect MyHobby” ① to start the app.

You will be asked to register the first time you start the app. Use the menu ② to register.

### To register:

follow the instructions in the sections below for the “Android operating system” or the “iOS operating system”, depending on which system your mobile device uses.

If the app has already been started, select “MyHobby Code” ⑦ to view your account data.



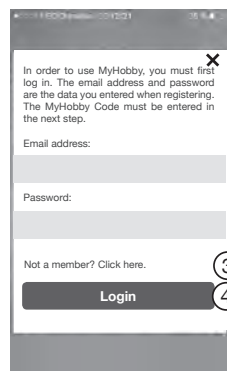
III. 2

### Android Operating System

The interface for registering in the Android operating system is shown on the left.

Click on “Not a member? Sign up now.” ③ to register. Complete registration as described in III. 4.

Use the “Forgot password?” function ⑤ to reset the password and have a new password sent to the e-mail address entered.

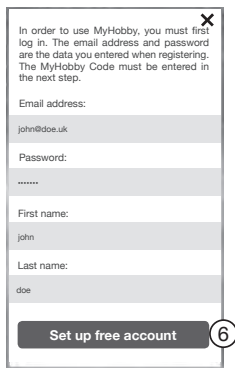


III. 3

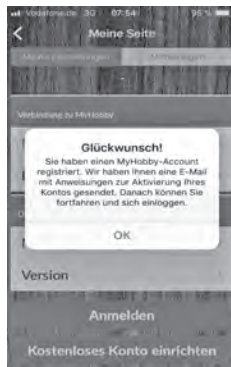
### iOS Operating System

Click on “Not a member? Click here.” ③ to register.

Complete registration as described in III. 4.



III. 4a



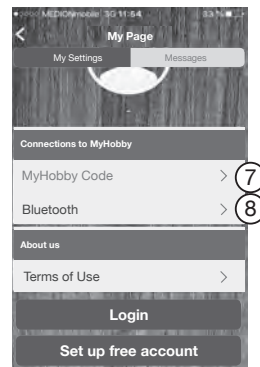
III. 4b

Enter your e-mail address, your first and last name and set up a password. Then click on the button “Set up free account” ⑥.

You will then receive an e-mail that includes a confirmation link. Click on the confirmation link to complete the registration process.

In future, simply enter this e-mail address and the password that has just been set up in login form (III. 2/III. 3) and click on the “Login” button ④ to start the app.

This will take you to the Start menu.

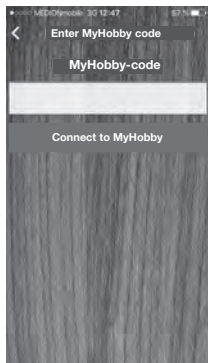


III. 5

### MyHobby Code

To enable the dealer to generate the Hobby code, please have the following data at hand:

- the serial number of the MyHobby Connect Box (can be found on the box, in the enclosed documents or in the TFT menu for Hobby Connect under CB number: xxxxxx)
- and the vehicle identification number (VIN).



III. 6

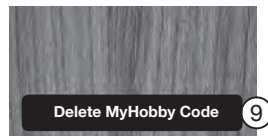
When you have received the Hobby code, select “MyHobby Code” ⑦ and enter the access code.



- Your dealer will give you the access code.
- Be careful to use the correct upper and lower case spelling.



The Bluetooth function will be activated after the van has been connected to the app for the first time by entering the access code. Before this has been completed, it is not possible to connect via Bluetooth.



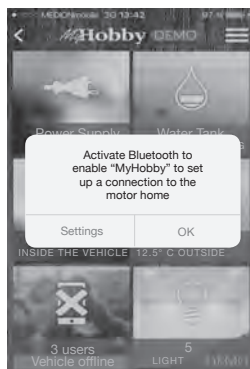
III. 7

The MyHobby Code that has been entered is shown at the top of the screen (removed here for reasons of data protection).

Use the “Delete MyHobby Code” button ⑨ to disconnect and delete the access code that was entered.

Furthermore, the red button indicates that the MyHobby code is correct and that you can now return to the main menu.

There are differences in the app’s functions, depending on which components have been fitted, as well as different functions, depending on the type of vehicle. **(See App Functions)**



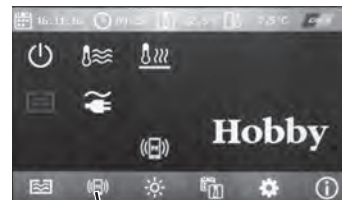
III. 8

### Setting up a Bluetooth connection

To set up a connection between your mobile device and the TFT control panel in the van, the Bluetooth function on both components must be activated.

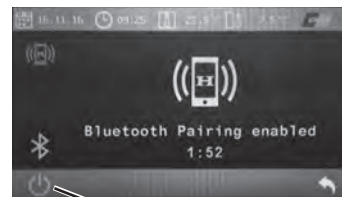
Therefore, in order to use the app functions, you will be requested to activate Bluetooth on the app (III. 8).

1. Activate the Bluetooth function on the TFT control panel in the van. Proceed as follows:



III. 9 10

In the Start menu, select the submenu HobbyConnect 10 by means of the softkey or the control knob.



III. 10 11

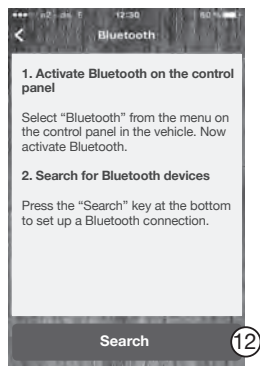
Activate and deactivate the Bluetooth connection by means of the On/Off function 11 in the submenu.



The system counts down the remaining time from 2 minutes. During this time, the van is displayed on the mobile device via Bluetooth.

2. Activate the Bluetooth function on your mobile device. If necessary, use the manufacturer's operating instructions.



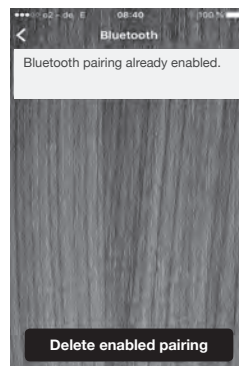


III. 11

When the Bluetooth functions have successfully been activated, use the “Bluetooth” button ⑧ on the app's Start menu to connect the components and then start the “Search” function ⑫.

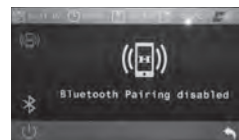


This procedure can take up to 30 seconds.



III. 12

The picture (III. 12) shows a successful Bluetooth connection.



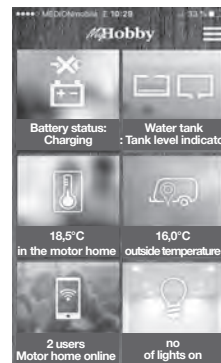
III. 13

This message will appear on the TFT control panel if a Bluetooth connection could not be set up.

Please check the Bluetooth settings again on your mobile device.



III. 14



III. 15



Special features indicate that a connection to the van could not be set up. The overview will be greyed out and “No control/vehicle offline” will be displayed.

This may be caused by the following:

- The box was not connected to the USB power supply cable.
- The box is not activated. The box activates itself automatically as soon as the motor home has been connected to the power supply for a certain period of time.
- The box was not connected by means of the USB power supply cable.



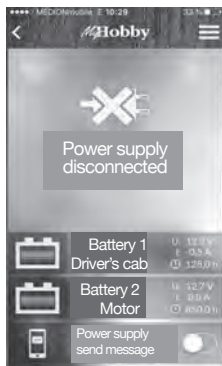
The operating elements on the app interface may vary, depending on how the vehicle has been equipped. Tap on the desired function once to enter the submenu and obtain detailed information on the function in question.



Please contact your dealer if you have any questions or difficulties.

## Using the app functions van

The control panel display shows the functions that can be read out and/or controlled via the app.



III. 16

### Battery management

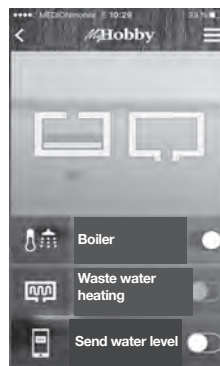
The batteries available in the bus system are displayed on the Battery Management menu. The battery menu can recognise up to 3 batteries provided each of these has a battery sensor.

All information is transmitted via the sensors.

Values are displayed for power, voltage, mains operation and discharging/charging of the battery.



The motor battery is also displayed. The function can be programmed to send you a message if the battery voltage should sink below a critical level.

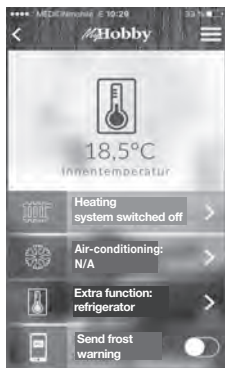


III. 17

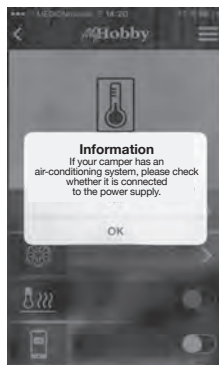
### Water and waste water

The water levels in the fresh water and waste water tanks can be seen in this submenu.

The waste water tank heating system and the boiler for the heating system can be switched on and off here manually as required.



III. 18



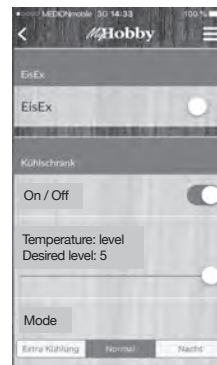
III. 19

### Inside temperature

Apart from the settings for the heating and air-conditioning systems, there is a further submenu on the mobile home app called “Extra Function”.

If, for example, no air-conditioning system was fitted, the system will recognise this and inform the user accordingly. **(Fig. 19)**

Furthermore, the function can be programmed to send you a message if the system recognises there is a danger of frost, enabling you to switch on the heating if necessary to prevent the caravan freezing up.



III. 20

The Ice Ex cartridge\* is controlled in the extra menu, provided this component has been installed.



The refrigerator is only displayed in vans with a refrigerator cabinet (SlimLine). Other refrigerators are not available in the bus system.



III. 21

### Weather and location

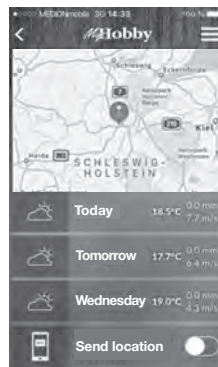
The outside temperature is detected via a sensor. A weather forecast is displayed for the next three days.

After parking the vehicle in a certain location, activate the function "Notify location".

This enables the system to understand that the motor home is not to be moved from its location. Should the vehicle's position be changed, an automatic message will be sent to your mobile device as soon as the radius has been changed by more than 1 km.



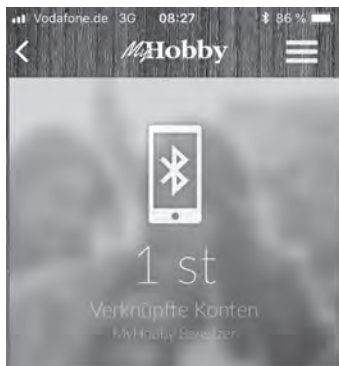
If you have deactivated the "Notify location" function on your mobile device, the last known location will be used. The weather report may then vary considerably.



III. 22

GPS data is used to show the position of the van.

This data is not stored. Should there be a GPS connection, the current position is always displayed. Click on the map to be redirected to the Google Maps view.



III. 23

### Users

This menu displays the number of users connected to the vehicle via the Internet. If you have logged in via Bluetooth, this will be displayed here.



III. 24

### Lighting

The lighting menu can be used to switch lights on and off individually or as a light group (several lights at the same time).

To set up a light group, switch on the desired lights and save them under Light Group.



The app cannot be used to dim the lights.



III. 25

### MyHobby Messages

All notifications can be centrally administered in this menu.

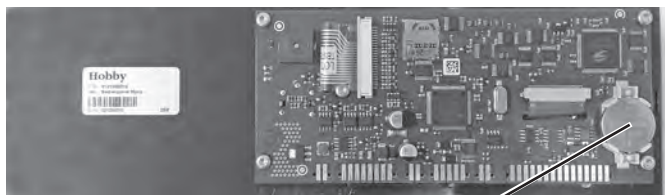
The MyHobby App is available in the following countries:



## Possible errors

Possible errors	Suggested solution	Other
The app cannot be found in the store.	Check the settings on the device; write MyHobby as one word and not two.	Check the app settings in the respective country.
The Hobby Connect Box is not recognised.	Check whether the device is connected to the power system.	The red and green LED lights must blink in the upper left-hand corner.
The box is connected to the power system, but it is not recognised.	Check the data cable on the box. Restart the device by separating it from the power supply system for 10 seconds and then reconnecting it.	Contact your dealer.
Logged into the app, but the box is in offline mode.	Have your dealer check GSM and GSM reception.	If necessary, change the location and then check again.
Only the air-conditioning system is not recognised.	Press the main switch located directly on the roof air-conditioning system to operate the device.	Contact your dealer.
The connection was interrupted.	Disconnect the power cable from the box for 10 seconds and then restart.	Still no connection: have your dealer check the data.
App connection exists, but elements in the vehicle do not react to switching.	Check whether the HobbyConnect icon is displayed on the TFT control panel. If necessary, exit from the demo mode.	If no icon is visible, check the power supply. If necessary, disconnect it briefly.
Hobby code does not work.	Enter again. Be careful to use the correct upper and lower case spelling.	Should several attempts fail, contact your dealer.
Bluetooth connection does not work.	Check the settings on your mobile device to ensure that Bluetooth has been activated.	If the distance to the vehicle is too great.





Circuit board (reverse side)  
of TFT display

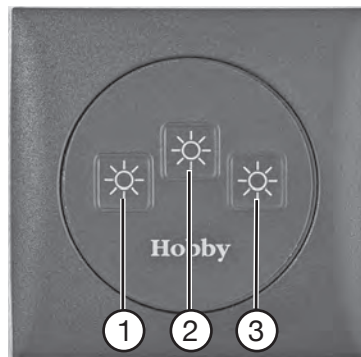
## General information regarding the TFT display

The time and date are buffered by a 3V 210 mAh, CR2032 type button cell ①. If, therefore, the time should be incorrect or the clock should stop working, this button cell must be replaced.

It is mounted on the reverse of the circuit board of the LCD display. To replace this button cell, the LCD display must be removed from the furniture front by carefully clipping the chrome-plated frame out of its holder. You will then see the screws that fasten the plastic part to the furniture. Loosen these screws to detach the display.



When replacing the button cell, please ensure that plus and minus are in the right direction. Incorrect polarity may cause the display to become defect.



3-key control panel

## Remote control(s), bed

- Briefly press the key on each remote control by the bed to switch on the left light ①, right light ③. The key ② switches the ambient lighting\* **(in the De Luxe and Premium series)** in the sleeping area on and off. Press longer on the key to regulate how brightly you want the lights to shine. The brightness you set will be saved; when the lights are switched on again, the brightness you originally set will also be switched on again.



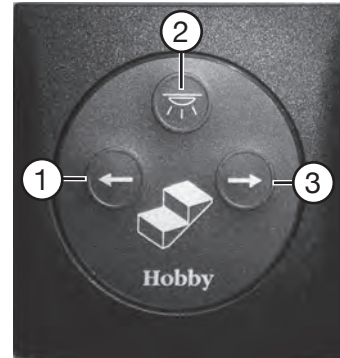
The triangular lights are standard equipment. They have separate switches on the lights that must be activated if you wish to use the remote control to switch them on and off. The key ② is not assigned in the Ontour series.



Washroom switch

### Remote control, washroom

- Briefly press the button to switch the light in the washroom (and in the separate shower, if there is one) on or off.



Switch for step tread

### Remote control(s), entrance

These remote control functions work even if the functions of the main switch have been deactivated on the TFT control panel. The remote control controls the electric entrance step. **(Vantana Ontour optional).**

- Press the button ① to fold the step in; press it ③ again to slide the step back out.
- Briefly press the button ② to switch on the entrance light (not while the motor is running). In the Ontour series, this is an optional feature; the standard switches the wall light on and off.



Kitchen and ceiling lighting

### Remote control for kitchen

- Briefly press the right key on the double switch to switch on the kitchen light.
- Briefly press the left key on the double switch to switch on the ceiling light.



CEE-External socket

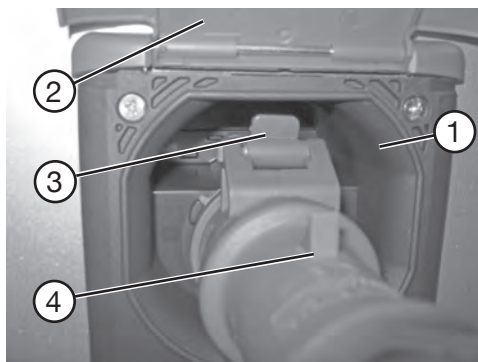
## 7.4 Electric power supply

In all of the vehicles, the central electrical system is installed underneath the front right passenger seat.

Electricity for the van can be obtained from the following connections:

- 230V mains connection 50 Hz
- via the generator when the motor is running
- via the ancillary battery

Everything that uses 12 V, such as lighting, water supply, etc., is available.



Connected 230V feeder plug

## Supply via mains connection

The van is connected to the external 230V mains by means of the CEE external socket (1) located in the side wall.

### To connect the CEE feeder plug

- Switch off the automatic circuit breaker (6) (see also p. 120) by pressing the rocker button (5) (see also p.120) down.
- Flip up the cover flap of the CEE external socket (2) (see also p. 40).
- Completely unwind the connector cable.
- Open the cap of the CEE feeder plug (3) by pulling it up in a 90° angle
- Insert the plug (4) until it locks into place.
- Switch the automatic circuit breaker (6) (see also p. 120) back on.



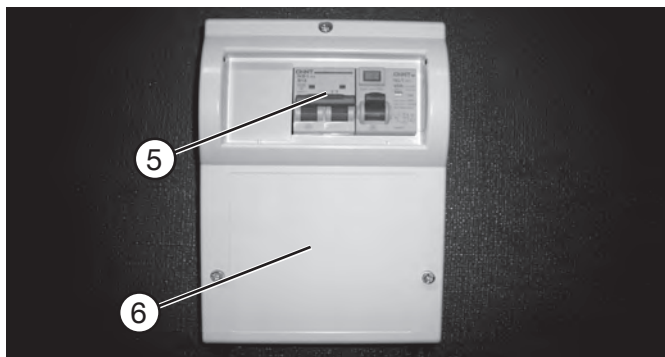
The van's engine must be turned off before the 230V mains connection is hooked up.

### To disconnect the electric connection:

- Switch off the automatic circuit breaker (6) by pressing the rocker switch down (5).
- Remove the CEE feeder plug (4).
- Press the cover flap (2) of the external socket (see also p. 40) down until it clicks into place.



Only plugs and cords that comply with CEE standards may be used.



Automatic circuit breaker with FI ('fast interrupt') switch

## Fuse protection for the 230V system

The 230V system is protected by a two-pole 13 A automatic circuit breaker (⑥), which is located in the seat chest in the seating arrangement. It can be accessed via the side compartment.

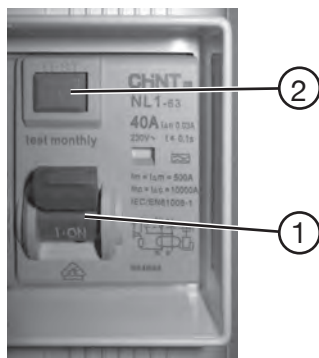
### Rules for the mains connection

- Use only a 3 x 2.5 mm<sup>2</sup> cable with a maximum length of 25 m, a CEE plug and connector to connect the van to an external 230 V mains.
- After the mains connection has been plugged in, both the modular and the vehicle battery will automatically be charged by the battery charger in the van (even if the Control Panel has not been switched on).



When obtaining electricity via a cable drum, this **must** be completely unwound, as otherwise induction may cause the cable to heat up, which could lead to burning. (Provided there is no protection against overheating)

- The 230 V mains connection in the van has been designed for a total power consumption of 2300 W. If additional devices requiring electricity are connected, such as a water heater, etc., you must ensure that this electric power value is not exceeded, taking other electrical equipment in use, such as the refrigerator, heating, etc., into account.



FI switch and test button

## Residual current device

The standard version of your vehicle is equipped with a residual current device that will interrupt the electric circuit in case of a possible residual current. Should there be a malfunction, the passenger circuit breaker opens the entire 230 V circuit.



Repairs must not be carried out on the residual current device.

A residual current device does not guarantee any protection against the danger from an electric shock. It does not protect against possible electrical accidents.



The tripping time for the residual current device (RCD) with a residual current of 30 mA is less than 0.1 seconds.

After putting the electric system into operation, the function of the residual current device must be checked. After voltage has been applied to the switch ① and it is on (set to I-ON) it must set off when you press the test button ②.

The rocker switch ⑤ (p. 120) jumps down; after it has successfully been checked it must be switched back up to the "On" setting.

This check should be carried out at least once a month to ensure that the residual current device functions perfectly in case there should be a fault in the current.



When the residual current device has been set off (even when testing) the customised settings in all mains-operated devices are lost and the default settings made by the manufacturer will apply again.

If the automatic circuit breaker has gone off (other than if you have switched it) you must wait a short while before switching it on again.

- If the automatic circuit breaker remains active, there was only an overload.

- If the automatic circuit breaker goes off abruptly again, there is either a short circuit or an earth fault.

Devices that set off during operation show that there is a defect; they must be checked and/or repaired by an electrical engineering specialist.



Switching it back on again and again will do no good. The automatic circuit breaker also goes off when the rocker switch is held firmly in place.

## Operation when the motor is running

As soon as the motor is running, a relay connects the starter battery and the van battery in parallel. Therefore, the dynamo charges both batteries. If the vehicle engine is issued, both batteries are disconnected from each other again. In this way, the starter battery cannot be discharged by equipment in the van.



Always turn the motor off before hooking up the 230V mains connection via the CEE external socket.

The absorber refrigerator\* can only be operated on 12V when the vehicle is driving. When the engine is not running, 12V operation of the refrigerator will automatically be switched off.



To optimally charge a discharged modular battery while driving, as many 12V electrical devices as possible should be switched off.

## Checklist

- Turn off the motor.
- Switch on the 12 V master switch.
- Turn off all equipment that uses 12 V.
- Start the motor.

The voltage of the van battery must rise if

- the engine speed is above the idling speed,
- the vehicle's battery is not completely discharged.

The control panel shows whether or not the generator has been charged. If this is not the case, please check the following:

- Is the 50A fuse in the supply line to the ancillary battery near the motor battery functioning properly?
- Is the "Motor running" signal on the input module on?

## Operation via ancillary battery



- Only accumulator batteries with bound electrolytes (gel batteries) may be installed in those positions specified by the manufacturer.
- The installed gel battery may not be opened.
- When changing ancillary batteries, use only batteries of the same make and capacity. (Setting the battery type on the control panel: see **p. 78**)
- Before disconnecting or connecting the auxiliary battery, switch off the motor, 230V supply, 12V supply as well as all electrical devices.
- Before replacing fuses you must first de-energise the charger.
- Before replacing a blown fuse you must first fix whatever caused the fuse to blow.
- Fuses may only be replaced by fuses with the same fuse protection value.



The 230V electrical devices do not work when using the ancillary battery as a power source!



Vehicle's electric system underneath the passenger seat

### Position of the 95 Ah AGM ancillary battery

The ancillary battery is mounted in the front right passenger seat console. The foot of the battery is attached to a base plate. The seat, including the rotating assembly, must be dismantled in order to subsequently fit or change the batteries.



In all vehicles, the optional additional battery is mounted on a base plate in the front left passenger seat console.

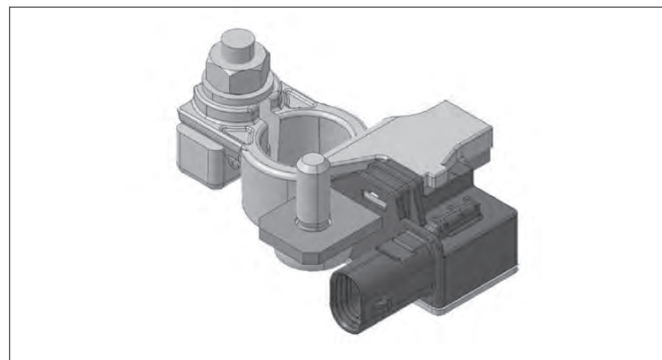


## Operating and charging the ancillary battery

If the van is not connected to the 230V mains supply, the ancillary battery will supply the electrical system with 12V DC voltage. Since the battery only has a limited capacity, the electrical devices should not be operated for a longer period of time without charging the battery or connecting the camper to the 230 V mains connection. Some electrical devices continuously use standby current from the ancillary battery. This discharges the ancillary battery.

Die Ladung der Aufbauatterie erfolgt über folgende Stromquellen:

- the generator when the motor is running
- the Dometic PerfectCharge SMP439 charger (only via 230 V power feed)
- if available, via a solar panel\*



**Intelligent Battery Sensor (IBS)**

### Battery Sensor (Vantana Premium, optional in the De Luxe series)

An Intelligent Battery Sensor (IBS) has been connected to the battery terminal. It measures and monitors the actual current, actual voltage and temperature of the batteries in a highly precise manner. Normally, the battery sensors are calibrated automatically. To calibrate the battery sensor manually, please follow the instructions in **Chapter 7.3 Battery Management**.



If there is a loss of power in the battery sensor (voltage absent), you must recalibrate.

It is possible to determine the remaining operating time of the battery based on the current consumption. The IBS ensures that the battery will be changed in good time and assists in providing active energy management so that the performance

requirements of the different electrical devices can be coordinated with the charging of the battery.

The charge state of the battery, age or remaining time until discharge are all shown on the TFT display of the control panel. Charging is carried out gently in accordance with the steady-state principle by an "intelligent" charger.



The battery sensor is protected by a 10 A .



- Always charge the ancillary battery for at least 24 hours before each journey, directly after each journey and before you take the motor home temporarily out of service.
  - Before each journey, please check that the battery is charged (**see p. 75**). If necessary, connect it to the mains to start charging the battery.
  - The battery is only charged if it has a minimum voltage of 8 V.
  - Use every opportunity during your journey to charge the battery.
- If the vehicle is not in use for a longer period of time, the battery should be disconnected after it has been optimally charged by switching the battery circuit breaker on.
- The battery loses its capacity after having been used for a while and at low temperatures.
  - A warning will go off if the battery ages to a value less than 50% of its nominal capacity.
- When operating the battery for the first time, the IBS must first collect measurement data (this process takes approx. 3 hours).
  - During this time, the battery's open circuit voltage is determined.
  - A charging/discharge current of < 150 mA is required to do so.



**Battery circuit breaker**

### Position of the battery circuit breaker

The battery circuit breaker is located directly by the front right passenger seat.

A circuit breaker has been installed to protect the modular battery from being exhaustively discharged when the van is not being used. When the switch is opened, the modular battery is completely disconnected from the 12 V mains.

**"Off" position = disconnected from 12V mains.**

The battery charger is directly connected to the ancillary battery so that the ancillary battery can be charged via the 230V mains supply even if the battery circuit breaker is switched on.



The battery sensor\* (model-specific) continues to be activated even if the battery circuit breaker has been opened.

To keep the batteries charged even when not in use, it is mandatory that the vehicle be connected to a 230V mains connection every 6 weeks. Recharging should be carried out for at least 24 hours.



The battery circuit breaker must be **on** when using the vehicle home and whilst driving.  
When the circuit breaker is open, the electrical input stage\* will **not** engage automatically.



If the battery circuit breaker has been switched on for a longer period of time, you may lose your customised radio and/or sat nav device settings. These settings must then be entered again.



**Battery charger**

### **Charger Dometic PerfectCharge SMP 439**

The charger supplies the batteries with electric power.

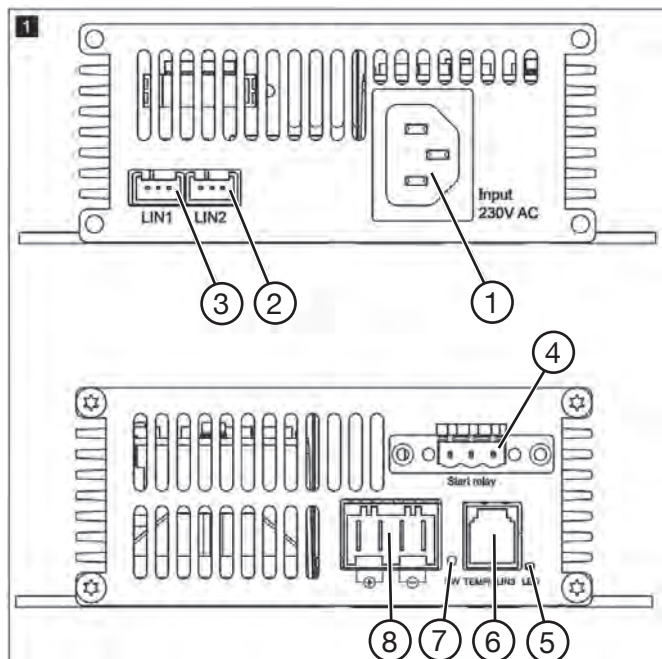
During this process, the existing cooling system runs passively; the fan is not active.

If the charging currents to the two batteries are high for a relatively long period of time, the charging current to the engine battery will be reduced and limited via an electronic current limiter. As a result, the leisure battery will be charged first.

Should the battery sensor measure a battery temperature of over 52°C, the control will pause the charging process to prevent the battery from being overcharged.



The charging device can be accessed from the back of the front right passenger seat.



Charger connections

- ① Input for AC operation
- ② LIN2 connection port
- ③ LIN1 connection port
- ④ Start relay port
- ⑤ Status LED
- ⑥ LIN Bus connection port/Temperature sensor
- ⑦ Selection switch for type of battery
- ⑧ Battery connection port

## 7.5 Electrical system

When the van is connected to the 230V mains supply, the battery is automatically charged by the charger.

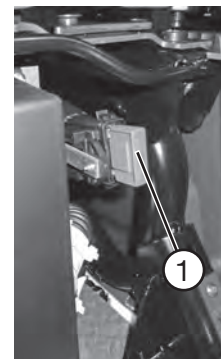
All 12V electrical devices are supplied directly by the ancillary battery. In 230V mains operation, they are supplied automatically by the battery charger.

All of the lamps in the van use 12V LED lights. Only large electrical devices such as the Combi E heating\*, air-conditioning system\*, absorber refrigerators\* running on 230V etc., use 230V.



Assignment of fuses

### Assignment of fuses



Main fuse for leisure battery

The fuses for the individual internal electric circuits are located in the central control.



In some models, there may be slight deviations in this assignment.



Only replace defect fuses if you know what caused the fuse to blow and have fixed this.

The original 50A fuse ① that protects the charging cable to the chassis' electrical system is located directly on the engine battery.





Sockets inside the vehicle

## Sockets inside the vehicle



Sockets located inside the vehicle may not be used for devices that are operated outside the vehicle.



USB twin charger socket

## USB twin charger socket\*

These connections are suitable only for charging USB-compatible devices. The two connections on the USB surface-mounted socket can be accessed from the top.

The 5V USB connection is supplied with power from the 12V electric system.



TV connections

## 7.6 TV Connections

### TV unit

The installation area for the flat-screen TV is located above the seating arrangement on the partition to the bathroom.

The required connections can be found right next to this space.

The corresponding connection for the SAT antenna (E3) is positioned behind the furniture surround, which is located in the right wall cabinet next to the TV connections.

The power cable (E3) has already been connected by the manufacturer to the control panel.

#### Cable colours (E3):

**black** = mass

**red** = steady plus for ancillary battery

**grey** = D+ signal

**orange** = plus from ancillary battery via main switch on TFT control panel

**80** (reserve cable, not attached): Preparation for a CI BUS connection





External socket and antenna terminal in the outer tent

### **230V external socket incl. coaxial-connection\***

As an option, your mobile home also has a combined external socket with a coaxial -connection in the outer tent. This can be used, for example, to set up a TV in the outer tent. Depending on how you wire it, the integrated antenna terminal can be used as either an input or an output socket. For further information, please speak to your Hobby dealer

## **7.7 Special Lights**

The switches for the lights described here are located directly on the lights themselves; they are not controlled via the control panel.



Fig. 1



Fig. 2

## Entrance light

The entrance area by the sliding door has been fitted with a light that cannot be operated using the control panel or one of the remote controls.

### Toggle the light in the frame:

- to the right = off (**see Fig. 1**)
- centre = light permanently on (**see Fig. 2**)
- to the left = light switches on automatically when sliding door is opened.



The light will switch itself off automatically when the sliding door stays open for a longer period of time.



SAT-nav device

## 7.8 Mobile navigation \*

As an optional feature, your van can be equipped with a mobile navigation system and integrated rear view camera.



- Read the device manufacturer's operating instructions carefully before initial operation.



- Do not allow yourself to be distracted by this device as this may cause accidents.
- Never operate the device while driving.
- Check the display panel only when the traffic situation is safe for doing so.



Reverse drive video system \*

As part of all vans standard equipment in the Premium series, they have been prepared for connection to a reversing camera video system:

The front connection of the built-in video cable is located in all vehicles underneath the upper right-hand compartment in the dashboard, which can be accessed after dismantling the inner shell. When driving, the camera system acts as a rearview mirror.

The rear cable end can be accessed from the outside of the vehicle by unscrewing the third, central brake light.

The following cable has been installed:

Model	Manu- facturer	Part description	Part number
Vantana	Dometic	Camera cable for vans	9102200098

7.9 Subsequently installed devices

Subsequently installed electronic devices that can be used while driving (e.g. mobile phones, wireless equipment, radios, cameras for driving in reverse, navigation equipment, or others) must meet all of the requirements for electromagnetic compatibility. Such equipment must have been approved in accordance with ECE 10, because otherwise it may cause interference with the electronic systems already installed in the van.

A CE mark is mandatory for devices that have been subsequently installed and which cannot be used while driving.

# Chapter 8: Water

## 8.1 General information



We recommend that you inspect any water you have left in the tank, this is very critical before using the water again.



- Always use water that is of drinkable quality when working with food. This also applies for washing your hands or objects that come into contact with food.
- In order to ensure excellent water quality, water should be taken directly from the public drinking water system. Please find out in advance about the local water quality.
- Garden hoses, watering cans and similar materials unsuitable for drinking water should never be used to fill the mobile system.
- If the van has not been used for a longer period of time, the entire water system must be emptied completely.
- After longer periods of stagnation, the water system must be flushed thoroughly before being used. Should you discover impurities, the material should be disinfected using suitable agents that have been approved for such measures.



Immersion pump

## 8.2 Water supply

### Function of the water supply

Fresh water is supplied to the heating system, the kitchen and toilette via a submersible pump. The TANDEM submersible pump operates electrically:

- via the ancillary battery,
- when the van is connected to the 230V mains via the power supply.

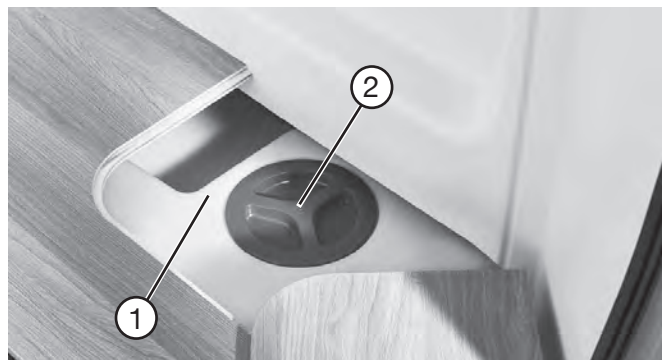
**The following applies for the TANDEM submersible pump:**

- The TANDEM submersible pump is only suitable for water.
- The TANDEM submersible pump can briefly tolerate temperatures of up to 60° C.
- Avoid dry runs.
- Protect the pump from freezing.
- Hard blows or hits as well as very dirty water can destroy the pump.



The TANDEM submersible pump requires no maintenance.

The TANDEM submersible pump switches itself on automatically when the water taps are opened.



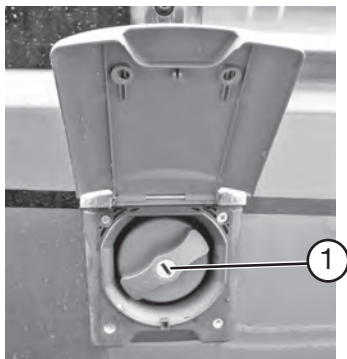
**Fresh water tank**

### **Fresh water tank**

The tank ① has a volume of 95 l and is located in the seating arrangement.

The tank is filled with fresh water by means of the filler neck on the side wall.

The neck for filling up fresh water is marked by a blue cap and a picture of a water tap on the upper edge of the frame. The screw cap is opened and closed by means of the enclosed key for exterior flap locks and the door of the structure. If you fill too much water into the tank, the excess will run out at the filler neck.



**Filler neck for the fresh water tank**

### Opening

- Use key to unlock ①.
- Give the blue cap a strong turn counter-clockwise and remove it.

### Closing

- Put the blue cap back on and turn it clockwise to shut it.
- Use key to lock ①.



Check the red service lids ② **S. 136** regularly; they may become loose if the fresh water tank is filled often.

### Filling the water system

- Place the van in a horizontal position.
- Shut all of the water taps.
- Switch on the main switch on the control panel.
- Close the outlet valve (FrostControl) on the boiler.
- Unlock the petrol cap and turn it counter-clockwise to open it.
- Fill the water tank using the fresh water filler neck.
- Turn all of the water taps to „hot“ and open them. The water pump will be switched on.
- Leave the water taps open until the water flows out of the taps without any bubbles. This is the only way to ensure that the boiler will also be filled with water.
- Turn all of the taps to „cold“ and leave them open. The cold water pipes will be filled with water.
- Leave the water taps open until the water flows out of the fixtures without any bubbles.
- Shut all of the water taps.
- Shut the filler neck.



Use the control panel to check the amount of water in the fresh water tank.



Never introduce anti-freeze or other chemicals into the water system.  
This can be poisonous!  
When operating during winter ensure that the fresh water tank is sufficiently heated.

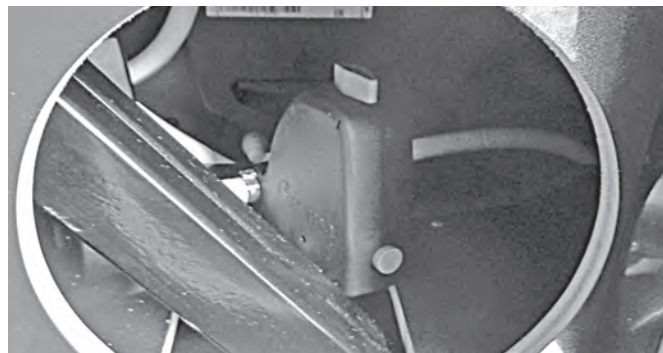
### To remove water

- The water will be mixed to the desired temperature according to the position of the pre-mixing unit.

### Hot water supply

Hot water is supplied by means of the hot-air heating system with its integrated hot-water boiler (**see also Chapter 10.2.1**); the options for settings are described on **p. 160 “Changing the hot water temperature”**.

The boiler will automatically empty itself via a safety or outlet valve if there is danger of frost (**see also p. 168 Frost Control**).



Frost Control

### Position of the Frost Control valve

The Frost Control valve is located directly on the hot-air heater in the seating bench. It can be accessed via the furniture flap on the side.



The non-electric safety or drain valve will automatically open at temperatures under approx. 3°C and drain the boiler contents via a drain nozzle.

If the cold water system is operated without the boiler the boiler tank will still fill with water. In order to avoid frost damage the boiler must be drained via the drain valve, even when not in use.



**Outlet valve for fresh water tank**

### **Emptying the fresh water tank**

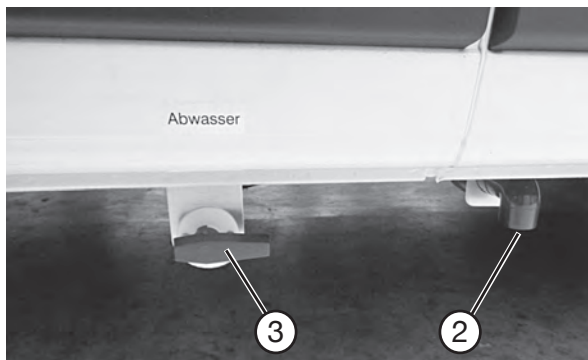
The outlet valve is located in the rear behind an opening in the furniture, directly on the fresh water tank.

- To empty the fresh water tank, turn the rotating wheel ① to the left to open.



Always empty the fresh water tank completely if the heating has not been switched on and the van is not in use, and especially if there is frost.





**Waste water opening**

### Emptying the waste water tank

- The waste water opening ② is located on the left side underneath the vehicle.
- Turn the valve ③ to open it and drain off the waste water.
- After all of the waste water has been drained off, shut the valve by turning it.

### Emptying the entire water system

- Use the control panel to switch off the electricity for the water pump by pressing the main switch (for approx. 4 seconds).
- Open all of the water taps to the centre setting.
- Hang up the adjustable shower head in the shower.

- Open all of the outlet valves (including the FrostControl).
- Unscrew the cap on the cleaning port of the fresh water tank ② (page 136).
- Take out the water pump and hold it up until the water pipes have emptied completely.
- Check whether the tank, boiler, faucets and pipes have emptied completely. If necessary, blow out any remaining water in the pipes using compressed air (max. 0.5 bar).
- Re-insert the the water pump in the fresh water tank and close the openings.
- Leave the faucets and the outlet valves open.
- Clean the tanks and rinse them thoroughly.
- Allow the water system to dry for as long as possible.
- Do not forget to empty the toilet cassette.



If the vehicle is not being used and there is a danger of sub-zero temperatures be sure to drain the entire water system. Leave taps turn on in the middle position. Leave all drain valves open.



Only empty your waste water tank at the specially designated disposal points and never in open spaces! As a rule disposal points can be found at motorway service stations; campsites and petrol stations.

## Waste water tank

The waste water tank is integrated in the chassis; it is insulated.

### Optional

After the electric waste water tank heating system has been switched on on the control panel, the tank is heated by a heating cartridge. This prevents the waste water from freezing in a light frost (**please refer also to the description on p. 77**).

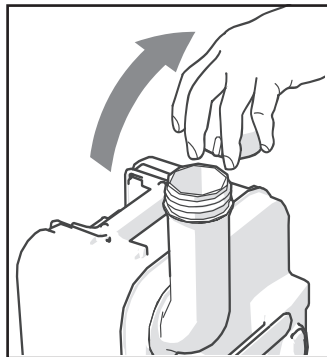
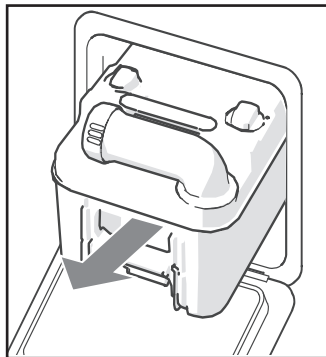


Do a small quantity of antifreeze agent (e.g. table salt) to the waste water tank if temperatures are significantly below freezing to prevent the waste water from freezing.

The waste water tank is not sufficiently protected against damage from frost when the vehicle is not in use. Therefore, if there is any danger of sub-zero temperatures empty the waste water tank completely.

Never pour boiling water down the sink. This can cause distortions and leaks in the waste water system.

Use the control panel to check the amount of water in the waste water tank.



## 8.3 Toilet

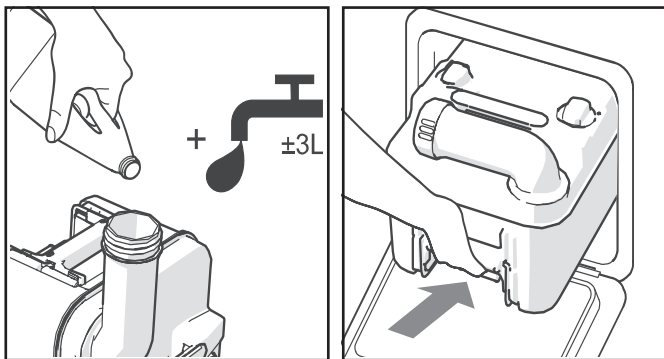
The pivoting toilette consists of two parts: a fixed toilette and a removable waste tank. Before the toilet can be used, the waste tank must first be prepared as described below and then returned to its original position.

### Preparing the waste tank

- Open the Thetford door (**see 5.2 Toilet flap**) and pull the holding bar up to remove the waste tank.



The waste tank can only be removed when the drain valve is closed.



- Pull out the tank as far as possible, keeping it level.
- Slightly tip the waste tank and then pull it out completely.
- Set the waste tank in an upright position, turn the spout to the top and open it.



Use toilet fluids very sparingly. An overdose is no guarantee of preventing possible odours!

- Fill the waste tank with the correct amount of toilet fluids.
- Then add enough water to completely cover the bottom of the waste tank (approx. 3 liters).
- Shut the spout and turn it back to its original position.

- Push the waste tank back into position.
- Ensure that the holding bar secures the waste tank.
- Close the service flap.

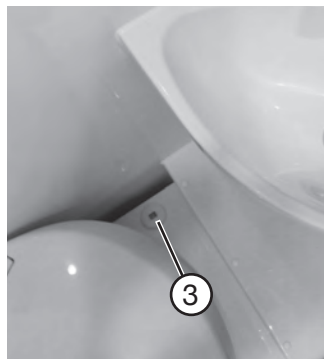


Never add sanitary liquids directly through the valve or into the toilet bowl, because this may damage the washer of the valve in the waste tank.

Always add liquids by pouring them through the spout.



Rotating toilette



Filling level indicator

## Using the rotating toilette

- Shut the lid of the toilette and use both hands to turn the bowl to the desired position (clockwise: no more than 90°; counter-clockwise: no more than 170°).
- Then open the cover plate by pulling the handle ① to the right.
- Press the flush ② for several seconds to flush the toilette.

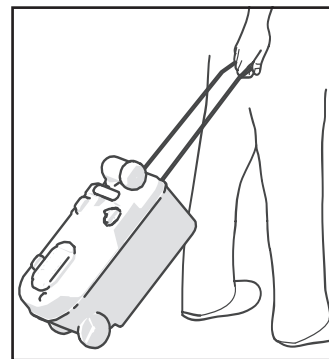
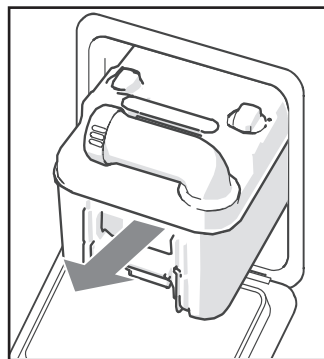
### ③ Filling level indicator



The rotating toilette can be used whether the cover plate is open or closed.



The toilette is designed for a max. weight of 120 kg.



## Emptying the waste tank

The waste tank must be emptied no later than when the single-stage filling level indicator ③ lights up. It is recommended that the tank is emptied before this.

- Open the toilet flap and pull the holding bar up to remove the waste tank.

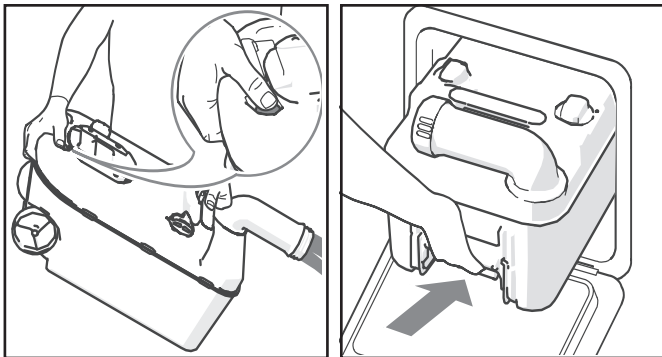


The waste tank can only be removed when the drain valve is closed.



Only empty the waste tank at specially designated disposal points and never in open spaces!

- Pull the handle all the way out.



To empty the tank without spraying, press the vent button while you are emptying the contents of the tank. Only press the vent button when the drain tube is in a downward position!

Please refer also to the manufacturer's operating manual, included in this package.

To prevent damage by water to your vehicle, the waste tank should be no more than  $\frac{3}{4}$  full when driving. Otherwise, it may leak through the ventilation system.

- Take the waste tank to a designated disposal site.
- Set the waste tank in an upright position and turn the spout to the top.
- Remove the top on the spout.
- Hold the waste tank so that the spout points down.
- Press the ventilation button with your thumb and hold it down. The waste tank will drain itself.
- Flush the waste tank once with fresh water (approx. 5 liters). Do not forget to screw the cap back on to the emptying support.
- Return the waste tank to its storage position, ensuring that it is pushed in until the holding bar locks into place.
- Lock the service flap.

## Chapter 9: Gas

### 9.1 General safety rules when using LPG fittings



The operating pressure for gas is 30 mbar.



You are not permitted to operate the heating system while driving!

**Exception:**

As an optional feature, the vehicle can be equipped with a gas pressure regulator for use while driving (e.g. ControlCS).

#### Checking the gas fittings

- Before initial operation have the LPG fittings checked by an expert.
- The gas fittings must be checked every 2 years by an LPG expert. This must be confirmed on the certificate (in accordance with Form G 607 from the German Association of Gas and Water Experts (DVGW) and EN 1949).
- Regulator knobs, hoses and exhaust pipes must also be checked.
- The safety regulators and hose lines must be replaced at least every 10 years; high-pressure hoses after 5 years (from the date they were manufactured. Should you dis-

cover tears, porous spots or similar defects in the hose, it must be replaced immediately.

- The operator is responsible for having checks carried out. This also applies for vehicles that have not been approved for driving on the road.



If you suspect that gas is leaking, take the following measures immediately:

- Close the stop valve on the gas cylinder.
- Ignition sources such as open flames or smoking are strictly forbidden.
- Air the rooms.
- Clear the danger zone.
- Inform your immediate surroundings (groundsmen) and, if necessary, the fire brigade.

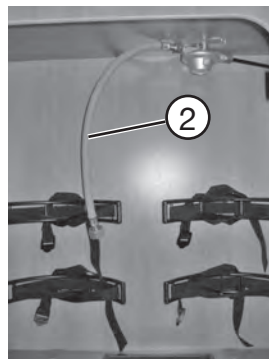
The gas fittings may only be taken into operation again after they have been checked by an expert.

#### Built-in objects and changes

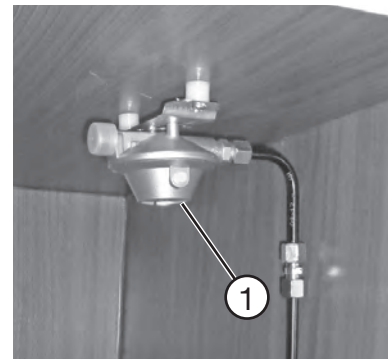
- Fixtures and changes to the gas system may only be carried out by a recognised expert for liquid gas systems.
- Only devices with a constant connection pressure of 30 mbar may be operated.
- Following any changes to the gas fittings they must be rechecked by a recognised expert, who must provide a written confirmation.

## Regulators and valves

- Use only special vehicle regulators that have a safety valve. In accordance with the German DVGW (German Association of the Gas and Water Sector) Worksheet G 607, other regulators are not permitted; they are not adequate for handling the heavy strain.
- Pressure control devices must have a fixed outlet pressure of 30 mbar. The requirements of EN 12864, Appendix D, apply accordingly. The regulator must have a rate of flow of 1.2 kg/h.
- Connect the regulator knob or high-pressure hose to the bottle carefully by hand (**NB: left-handed thread**). Do not use spanners, pliers or similar tools.
- If the temperature is below 5°C use the de-frosting facility (ice-ex\*) for regulators.



High-pressure hose ②



Gas regulator mounted on the ceiling ①

### Gas regulator for France and Great Britain \*

Due to specific country regulations, the gas regulator in vehicles exported to France and Great Britain is firmly mounted on the ceiling of the gas bottle container. This requires the use of a high-pressure hose. Therefore, the low-pressure hoses that are normally used may not be fitted here.

- gas regulator mounted on the ceiling ①
- high-pressure hose ②



High-pressure hoses are used for gas regulators that have been mounted on the ceiling. This must always be taken into account should it be necessary to replace the hose. Connections on gas pressure regulators are screwed on anti-clockwise. High-pressure gas hoses must be replaced every 5 years (the manufacturing date printed on the hose is decisive for determining when this must be done).

## Before initial operation

- The waste gas pipe must be tightly connected to the heating and chimney without any leaks. It may not be damaged.
- Keep vents clear.
- Remove any snow from the chimney.
- Clear aspirating openings for combustion air in the side all from dirt and/or snow. Otherwise, the exhaust fumes could have a CO content higher than allowed.
- Do not close the safety vents.
- We recommend that you store a Type ABC powder fire extinguisher with a minimum capacity of 1 kg by the entrance door as well as a fire blanket next to the cooker. Familiarize yourself with the safety precautions against fire that have been set up on the grounds where you are parked.  
**(see also Fire protection, Chapter 2.3).**



Never use portable cooking or heating devices. The only exception are electrical heating devices (note their power consumption) - but not radiant heaters, because they constitute a fire and suffocation hazard.



Read the manufacturer's operating manuals carefully!



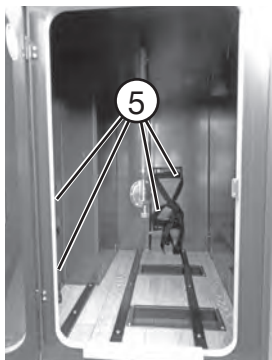
**Safety instructions in gas bottle container**

## 9.2 Gas supply

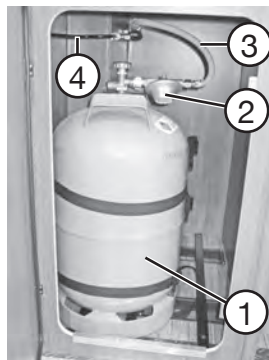
The van is equipped with a liquid gas system (gas bottle not included in scope of delivery). This system is used to run the following equipment:

- Cooker
- Heating
- Hot water boiler
- Possibly special accessories
- Possibly the absorber refrigerator\*





Fastening straps



Connected gas bottle

## Gas bottle cabinet

The gas bottle container can be accessed in the rear of the vehicle behind a furniture door. It is accessible through the rear doors.

The gas bottle container holds two 11 kg propane cylinders ①. Via a safety regulator ②, the gas bottles are attached by a hose ③ to the supply line ④. Each bottle is fastened to the wall by two separate belts ⑤.



Gas bottles may only be carried in the gas bottle container.

### The following applies to the gas bottle cabinet:

- Always check the gas cylinder mountings before driving. Stand the gas cylinders upright and close the valves.
- Pull any loose straps tight.
- The gas-bottle container is not suitable for transporting accessories (e.g. food or electrical devices).
- The stop valves on the gas cylinders must always be easily accessible.
- Do not close the gas bottle cabinet's air vents.
- Ensure that third parties cannot gain access to the gas bottle cabinet.



Gas bottles must be shut while driving if there is no crash sensor\* on board.

## Changing gas cylinders



Do not smoke or ignite open flames while changing the gas cylinders. After changing the gas bottles, check whether there is any gas escaping from the tie-in point by spraying it with leak detection spray.

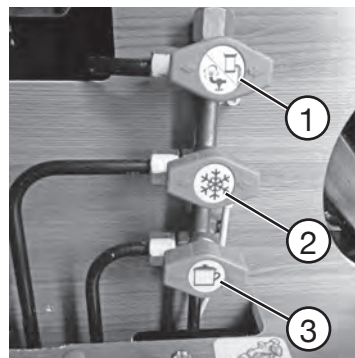
When the hose line is connected to the liquid gas bottle, ensure that it is free of kinks and not subject to stress.



The regulator knob must be positioned above the valve on the bottle.

Please note that gas-proof surfaces must always be clean and intact.

- Open the flap of the gas bottle container.
- Close the main stop valve on the gas cylinder. **Pay attention to the direction of the arrow.**
- Unscrew the gas pressure regulator/ high-pressure hose\* by hand from the gas bottle (left-handed thread).
- Loosen the fixing strap and remove the gas cylinder.
- Replace the full gas cylinder in the gas bottle cabinet and carefully fasten it using the fixing straps.
- Screw the gas pressure regulator/ high-pressure hose\* by hand on to the gas bottle (left-handed thread).
- **Only when equipped with a crash sensor\*:**  
Press on the hose rupture protection (green button) on the high-pressure hose (p. 151).
- Check that gas is not escaping from the connection point using leak detector spray.
- Close the door of the gas bottle container.



Gas shutoff valves

## Gas shutoff valves and valves

A corresponding gas stop valve has been built in for each gas device that has been installed. These gas taps can be used to interrupt the flow of gas to each device. Each tap has been labelled with an icon for the corresponding device.

### Place of installation of gas shutoff valves

- in the seating bench, accessible via the furniture flap on the side

- ① heating
- ② refrigerator\*
- ③ Gas cooker

**The following applies to stop valves and valves:**

- All the valves on gas devices must be closed while driving.
- To open the valves, they must be turned by 90°. Opened gas stop valves are set in the same direction as the gas line.
- No firing point may be in operation when filling the petrol tank of your vehicle on ferries or in the garage.



Should you suspect a leak in the gas system, immediately close the shutoff valves in the vehicle and the gas bottle valves in the gas bottle container.

Over the years, vibrations can cause slight leakages to occur. If you suspect that there are leakages, have your dealer or an authorised workshop for gas facilities check your system.

Never carry out leak tests near an open flame.

**Gas regulator with a crash sensor \***

Using the MonoControl CS and DuoControl CS, it is possible to heat the vehicle even while driving.

Should there be an accident, the integrated crash sensor automatically interrupts the gas supply, thereby preventing gas from escaping.

(Effect of delay  $3.5 \text{ g} \pm 0.5 \text{ g}$ ; this corresponds to an impact speed of 15-20 km/h against a fixed obstacle.)



Please refer also to the manufacturer's separate operating instructions.

When exchanging gas bottles, use the enclosed screw aid to screw and unscrew the high-pressure hoses. This will prevent damage to the screws, which can be caused by using the wrong tools.

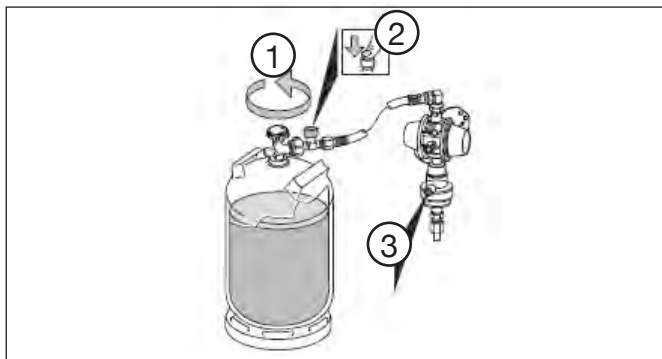


Diagram of MonoControl CS

### To operate

- ① Open the valve on the bottle.
- ② Press firmly for approx. 5 seconds on the hose rupture protection (green button) on the high-pressure hose.
- ③ If necessary (e.g. after it has been newly mounted or the gas bottle accidentally hits against the gas pressure regulator system) press firmly for approx. 5 seconds on the green reset button on the MonoControl CS (resets the crash sensor activation element).

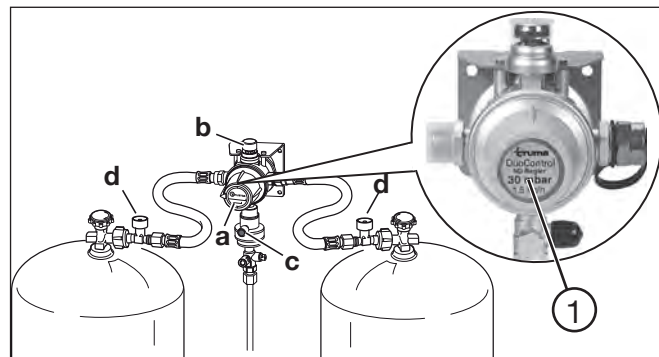


Diagram of DuoControl CS

### Switching valve for the two-cylinder gas unit\*

The DuoControl CS changeover valve enables you to automatically change from the operating bottle to the spare one. The crash sensor is built into the DuoControl; this permits you to use the heating system while driving.



It operates similar to the MonoControl CS.

- a Turn the knob to the left ① or right to determine which cylinder is to be used.
- b Shows the status of the cylinder in use.  
**Green: full**  
**Red: empty**

**c** crash sensor activation element

**d** hose protection

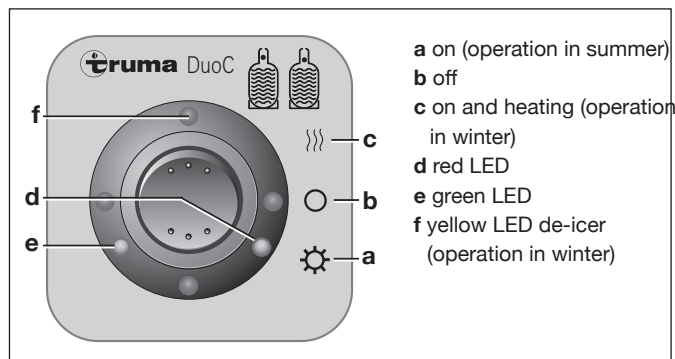
### Function

- Attach gas cylinders and open the valves of both gas cylinders. Turn the rotary knob to the left or right as far as it will go (setting it to the centre position enables gas to be extracted from both bottles at the same time).

If the pressure in the cylinder is less than 0.5 bar, the valve will automatically switch the cylinder.



An Ice-Ex cartridge is integrated in the DuoControl CS changeover valve. It prevents the valve from freezing. Please also note the description for the TFT control panel, AUX menu (**p. 91**).



**Remote indicator for DuoControl CS**

### Remote indicator for the switching valve \*

The remote indicator is coupled to the changeover valve of the two-bottle gas system.

#### Operation in summer

Set switch down to **a**.

LED indicates the status of the bottle in use:

full = green LED lights up

empty = red LED lights up

#### Operation in winter

Set switch up to **c**.

In addition to indicating the status of the bottle in use, the changeover valve will be heated (yellow LED lights up).



## Gas filter\*

As an option, your vehicle can be equipped with a gas filter for the Truma Duo-/MonoControl. Please observe the enclosed manufacturer's operating instructions and change the filter cartridge regularly.

## Changing the filter cartridge



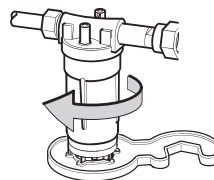
To protect against odours and residue, always use the spare filter supplied with the replacement cartridge. Use only original Truma spare filters (Art. No. 50680-01).

**Gas residue: no smoking or naked flames! Turn off the gas bottle before opening it.**

Use only the supplied screw aid to open and close the filter casing.

## Unscrewing the filter casing

To open

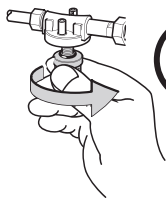


- Remove the residual waste that has been collected in the filter cartridge by wiping it with a soft cloth.

## Unscrewing the filter cartridge



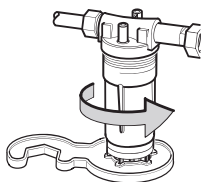
- To protect against odours and residue, wrap the used filter cartridge and cleaning materials in the protective glove.



- Hold the new filter cartridge at the top edge of the plastic part and screw it into place **by hand** (max. 1.5 Nm).

## Screwing on the filter casing

To close



The O-ring must be placed correctly in the O-ring groove. It must be absolutely dirt-free.

The sealing edge of the filter casing must not be damaged.

## Disposal



Dispose of the used filter cartridge as well as any cleaning materials used in accordance with the legal requirements of the country you are in. National regulations and laws must be observed (in Germany, for example, this refers to the Closed Substance Cycle and Waste Management Act and the waste management by-laws in the individual municipalities). In other countries, the regulations that apply there must be observed.

## Chapter 10: Built-in devices

### 10.1 General Information

In this chapter, you will find information on the devices that have been built into the van. This information refers only to the operation of these devices. To some extent, the devices described are special accessories. For further information on the individual built-in devices, please refer to the separate operating instructions that have been included in the blue service bag found in the vehicle.



Built-in devices may only be repaired by specialists.

Only the device manufacturer's original spare parts may be used for maintenance and repair work.

Any changes to the built-in devices as well as non-compliance with the rules for use will cause the guarantee to become void and lead to the exclusion of liability claims. Furthermore, the operating licence for the device will become void and, in some countries, this means that the operating licence for the vehicle is also void.



Please also refer to the instructions in **Chapter 9** for operating gas devices, gas regulators and gas bottles.

Please observe the instructions in **Chapter 7** for operating electrical devices.

### 10.2 Heating



You are not permitted to operate the heating system while driving!

**Exception:**

As an optional feature, the vehicle can be equipped with a gas pressure regulator for use while driving (e.g. Control CS).

#### 10.2.1 Truma Combi Heating System C4/C6E\*



##### Truma-Combi-warm air heater

The combined LPG heating consists of a warm air heater with an integrated hot water boiler (capacity: 10 l).

The heating system is fully operational with or without the hot water system.



As an optional extra, the vehicle can be fitted with the Combi-6E heating system<sup>\*</sup>, which has additional heating rods for electric operation.

#### Place of installation:

- in the seat chest.

#### Initial operation

- Several air vents have been built into the mobile home. Pipes transport the hot air to the air vents. Set the air vents so that the hot air can escape to where it is required.
- Check that the chimney is clear. Remove any covers.
- Open the gas bottle and gas shutoff valve on the gas pipe.



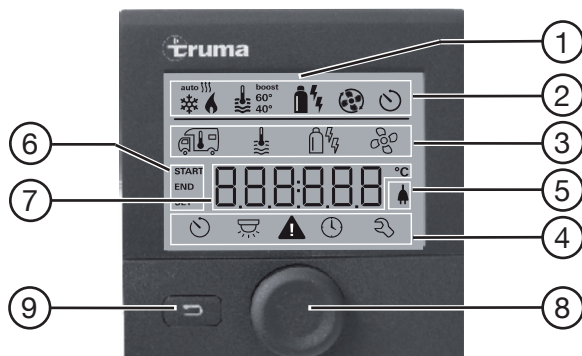
- Only operate the device if it is in perfect technical condition.
- Always have malfunctions repaired immediately. Only repair malfunctions yourself if such malfunctions are described in the troubleshooting instructions in this manual.
- Do not carry out any repairs on or make any changes to the device.
- Only have a defect device repaired by the manufacturer or their service department.



If the system's power supply is interrupted, the time must be reset.

Use the panel by the entrance to operate the basic functions of the Combi heating system (**see Chapter 7.3**).

The change to the iNet-ready version was carried out during the current season. Depending on when the trailer was manufactured, iNet-ready functions are available, whereby the Truma CP plus control panel functions as an interface for operating connected devices via the Truma App and iNet Box.



Truma control panel "CP plus"

## Operating and display controls

- ① Display
- ② Status line
- ③ Menu line (top)
- ④ Menu line (bottom)
- ⑤ Display: 230V mains voltage (shore power)
- ⑥ Display: timer
- ⑦ Settings / values
- ⑧ Adjusting knob / pushbutton
- ⑨ Reset button

The adjusting knob / pushbutton ⑧ is used to select the menus in lines ③ and ④ and change the settings. The data is shown on the display ①; the background is illuminated. Use the reset button ⑨ to return to the previous menu.

## Adjusting knob / pushbutton

The adjusting knob / pushbutton ⑧ is used to select and change specified values and parameters. The changes are saved by briefly pressing the button. Selected menu items blink.



### Turn to the right (+)

- Goes through the menu list from left to right.
- Increases the values.



### Turn to the left (-)

- Goes through the menu list from right to left.
- Decreases the values.



### Press the button briefly

- Saves a selected value.
- Selects a menu item; changes to the setting mode.



### Press (3 seconds)

- Main function ON / OFF

## Reset button

Press the reset button ⑨ to return to the previous menu and reject the settings. This means that the previous values will continue to apply.

## To operate

### Start / stand-by screen



A few seconds after the control panel has been connected to the power supply, a start screen will appear.

If nothing is entered for several minutes, a stand-by screen will automatically be displayed.

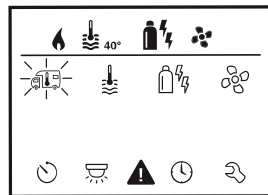


When the time is set (see “Setting the time”) the display alternates between the time and the room temperature that has been set. If no time has been set, the set room temperature will be displayed permanently.

## Functions

The functions in the menu lines ③ and ④ of the control panel can be selected in any sequence. The operating parameters are shown in the status line ② or in the display ⑤ and ⑥. Functions may vary, depending on the equipped fittings and model.

## Selecting the setting mode



### Press the adjusting knob / push-button

The display shows the setting mode. The first icon blinks.

### To switch on/off

#### To switch on

- Press the adjusting knob / pushbutton.



Previously set values / operating parameters will be reactivated after the control panel has been switched on.

#### To switch off

- Press the adjusting knob / pushbutton for longer than 4 seconds.
- **iNet-ready:** After 2 seconds, “APP” appears on the display; after a further 2 seconds, “OFF” appears on the display.



Due to an internal lag feed in the heating or air-conditioning system, it may take a few minutes for the Truma CP plus control panel to switch off (during this time, “OFF” appears in the display).

## APP mode in connection with an iNet Box

### Function

In APP mode, the connected devices as well as the Truma CP plus control panel switch to stand-by.

- no heating function
- no hot water generated
- air-conditioning system does not work
- the timer on the Truma CP plus control panel does not work

The CP plus control panel continues to receive commands via the Truma APP or the air-conditioning system's infra-red remote control. The connected devices can still be operated.

### Turning on the APP mode

- Press the adjusting knob/pushbutton approx. 2 seconds until "APP" appears on the display.
- Let go of the adjusting knob/pushbutton.
- The previously saved values will be saved.

### Turning off the APP mode

The APP mode is turned off

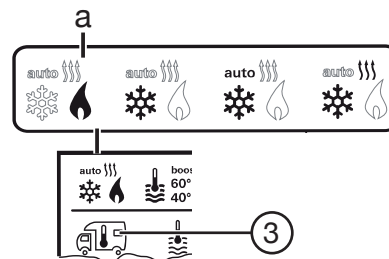
- when new values are transferred via the Truma APP or the air-conditioning system's infra-red remote control;
- when the Truma CP plus control panel is alerted by pressing the adjusting knob/pushbutton. The previously saved values will then be imported for renewed operation.



## Changing the room temperature

Use the adjusting knob / pushbutton to select the icon in the menu line ③

- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton to select the desired temperature.
- Press the adjusting knob / pushbutton to confirm the temperature.



### a = Heating<sup>1)</sup>

- Heating is switched on. The icon lights up.
- Adjustable range of temperature: 5 - 30°C (in increments of 1°C)
- Use the adjusting knob / pushbutton for fast temperature changes (on stand-by screen).

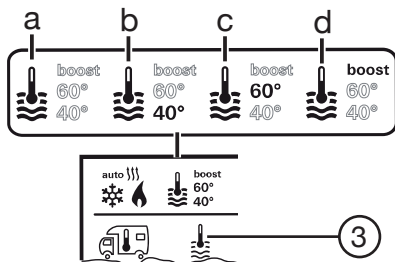
<sup>1)</sup> The icon will continue to blink as long as the desired room temperature has not been reached.



### Changing the hot water temperature

Use the adjusting knob / pushbutton to select the icon in the menu line ③

- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton to select the desired temperature.
- Press the adjusting knob / pushbutton to confirm the temperature.



- a = boiler<sup>1)</sup>** is switched on  
**b = 40° \*\*** hot water temperature of 40°C  
**c = 60°** hot water temperature of 60°C  
**d = BOOST<sup>1)</sup>** specifically heats up the contents of the boiler (boiler operation) fast for a max. period of 40 min.

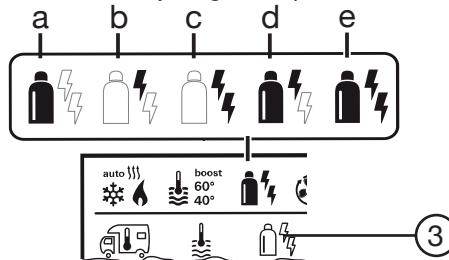
- <sup>1)</sup> The icon will blink until the desired water temperature is reached.  
<sup>1)</sup> Hot water temperature of 40°C can only be maintained at 40° C for a limited period of time if both the room and the water are being heated.



### Selecting the type of energy\* (for Combi-E heating only)

Use the adjusting knob / pushbutton to select the icon in the menu line ③

- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton to select the desired type of energy
- Press the adjusting knob / pushbutton to confirm the temperature.



Icon	Type of operation	Type of energy
a	Gas	Gas
b	EL 1	Electricity
c	EL 2	Electricity
d	MIX 1 <sup>1)</sup>	Electricity + Gas
e	MIX 2 <sup>1)</sup>	Electricity + Gas

<sup>1)</sup> Mixed operation (electric and mixed operation are optional extras)

Electric heating power: Level 1: 900W; level 2: 1800W



Before switching on the electric heating, please ensure that the fuse protection of the electrical supply at the campsite corresponds to the power setting you have selected.



As soon as the heating has been switched on (room temperature and hot water temperature have been activated) the type of energy selected in the previous heating operation is displayed in the status line.  
Manufacturer's default setting: gas.

### Special features in mixed operation

#### Interrupting the 230V power supply:

The heating system will switch automatically to gas operation. As soon as the 230V power supply has been reinstated, the heating system will automatically switch back to mixed operation.

#### Malfunction in the combustion process (e.g. lack of fuel):

**Combi Gas** The heating system will switch automatically to electric operation. If it is running in mixed operation, the cause of the malfunction must be eliminated. Use the control panel to switch the heating off and then on again.

### Special features in electric operation

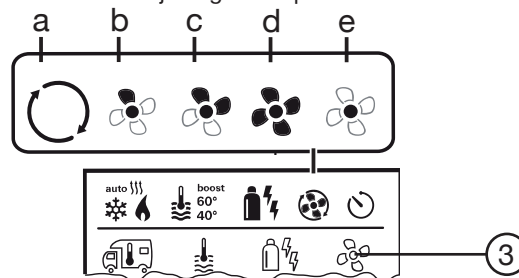
- If the 230V power supply is interrupted and the 12V supply has been switched on, an error code will be shown on the display.
- As soon as the 230V power supply has been reinstated, the heating system will automatically be restarted using the previous settings. The error code will disappear.



### Selecting the fan speed

Use the adjusting knob / pushbutton to select the icon in the menu line ③.

- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton to select the desired fan speed.
- Press the adjusting knob / pushbutton to confirm the temperature.



Icon	Type of operation	Description
-	OFF	Fan is switched off. (Can only be used if no device is being operated.)
a	VENT <sup>1)</sup>	Air circulation, if no device is being operated. RPM can be selected in 10 increments.
b	ECO	Automatic regulation of the fan depends on the heating power, optimised for the current heating requirement.
c	HIGH <sup>2)</sup>	High fan speed

- d BOOST** To heat room rapidly  
Available if the difference between the selected and the actual room temperature is more than 10°C.
- e NIGHT** Heating runs on a partial load only; the set room temperature may not be reached (depending on the size of the vehicle and the outside temperature).

- 1) Can lead to higher engine wear, depending on how often it is selected.
- 2) The “HIGH” fan speed has a higher current consumption, higher noise level and higher engine wear.



As soon as the heating has been switched on (room temperature and hot water temperature have been activated) the fan speed selected in the previous heating operation is displayed in the status line. Manufacturer's default setting: “ECO”.



### Setting the timer

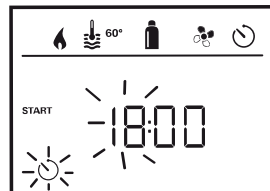


The timer can only be selected if the clock on the control panel has been set.  
If the timer has been activated (ON), the menu item Activate timer (OFF) is first displayed.

**Use the adjusting knob / pushbutton to select the icon in the menu line ④ .**

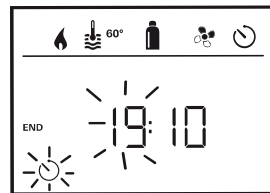
- Press to switch to the setting mode.

### Entering the start time



- Use the adjusting knob / pushbutton to set the hours and then the minutes.

### Entering the end time



- Use the adjusting knob / pushbutton to set the hours and then the minutes.



### Danger of poisoning from exhaust fumes.

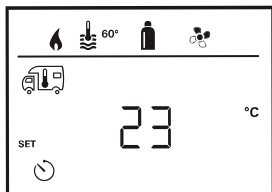
The activated preselection timer switches the heating on even if the van has been parked. In closed rooms (such as garages, workshops) the exhaust fumes from the heating can lead to poisoning. If the recreational vehicle is parked in a closed room:

- close the fuel supply (gas) to the heating system;
- deactivate the preselection timer on the Truma CP plus control panel (OFF);
- switch the heating off on the Truma CP plus control panel.



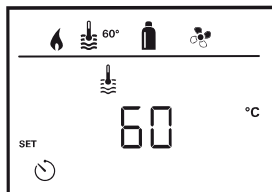
If the start/end time was exceeded during entry, the operating parameters will only be taken into account after the next start/end time has been reached. Until then, the operating parameters set outside the timer will remain valid.

### Setting the room temperature



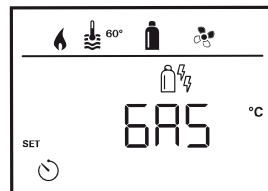
- Use the adjusting knob / push-button to select the desired room temperature.
- Press the adjusting knob / push-button to confirm the temperature.

### Setting the hot water temperature



- Use the adjusting knob / pushbutton to select the desired hot water temperature.
- Press the adjusting knob / push-button to confirm the temperature.

### Selecting the type of energy\* (for Combi-E heating only)

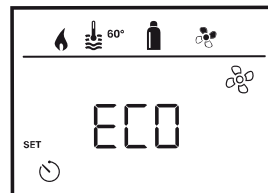


- Use the adjusting knob / pushbutton to select the desired type of energy.
- Press the adjusting knob / push-button to confirm the temperature.



The menu item “Select type of energy” will be depicted when a heating system that uses electric heating rods has been connected (optional extra).

### Selecting the fan speed



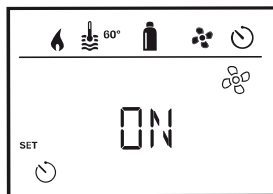
- Use the adjusting knob / pushbutton to select the desired fan speed.
- Press the adjusting knob / push-button to confirm the temperature.



The menu item “Select fan speed” will be depicted when the heating / hot water temperature has been set.



### Activating the timer (ON)



- Use the adjusting knob / pushbutton to activate the timer (ON).
- Press the adjusting knob / pushbutton to confirm the time entered.



The timer will continue to remain active, even for several days, until it has been deactivated (OFF).  
The icon for the timer will blink when the timer has been programmed and is active.

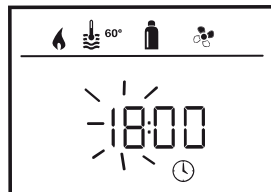
### Deactivating the timer (OFF)



- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton to deactivate the timer (OFF).
- Press the adjusting knob / pushbutton to confirm the time entered.



### Setting the time

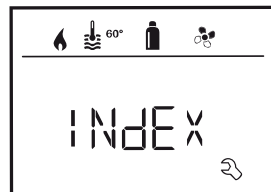


- The hours blink.
- Use the adjusting knob / pushbutton to set the hours (24-hour mode).
- After pressing the adjusting knob / pushbutton once again, the minutes will blink.
- Press the adjusting knob / pushbutton to confirm the time entered.



### Service menu

#### To show the version number of the connected devices



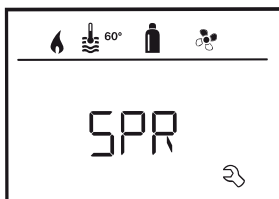
Show the version number of the heating or control panel.

### Changing the background illumination of the control panel



The background illumination can be changed in 10 increments.

### Changing the language



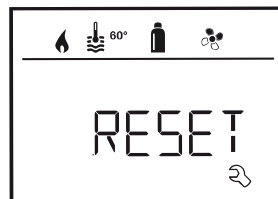
Select the desired language from the languages available (e.g. English, German, French, Italian).

### Calibrating the temperature sensor (OFFSET)



The temperature sensor for the heating can be individually adjusted to the size of the vehicle. The offset can be set in increments of 0,5°C within a range of 0°C to -5°C.

### Resetting to manufacturer's default setting (RESET)

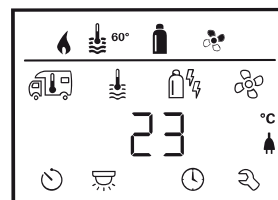


The reset function resets the control panel to the manufacturer's default setting. It deletes all of the settings you have made.

#### Confirming the reset

- Press the adjusting knob / pushbutton

### Display: 230V mains voltage



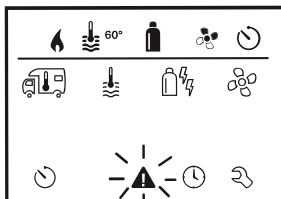
The icon signals that the 230V mains voltage (shore power) is available.



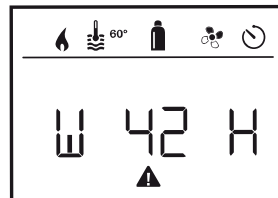
This can only be displayed in connection with a Combi E CP plus heating system that includes additional heating rods for electric operation (optional extra).

## Warning

A warning icon appears to signal a warning that one of the operating parameters has reached an undefined status. In this case, the device in question will continue to operate. As soon as the operating parameter is once again within its specified range of values, the icon will disappear.



## Reading out the warning code



- Use the adjusting knob / pushbutton to select the icon.
- Press the adjusting knob / pushbutton. The current warning code will be displayed. Use the error list to determine the cause of the warning and eliminate it.

**W = Warning**

**42 = Error code**

**H = Heating**

### Cause eliminated / Return to setting mode

- Press the adjusting knob / pushbutton.

### Cause not eliminated / Return to setting mode

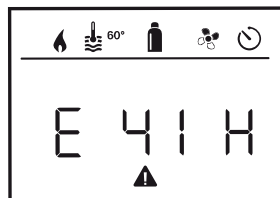
- Press the reset button.



In this case, the warning will not be acknowledged on the control panel and the warning icon will continue to be displayed. The control panel will remain in a warning state. Other connected devices can be operated.

## Malfunction

If there is a malfunction, the control panel will immediately go to “Malfunction” mode and display the Malfunction error code.



**E = Malfunction**

**41 = Error code**

**H = Heating**

**Cause eliminated / Return to setting mode**

- Press the adjusting knob / push-button.
- The corresponding device will be restarted.



Due to an internal lag feed in the connected devices, this may take a few minutes.

If the cause has not been eliminated, the malfunction will occur again and the control panel will once again go to “Malfunction” mode.

**Cause not eliminated / Return to setting mode**

- Press the reset button.



In this case, the malfunction will not be acknowledged on the control panel and the warning icon will continue to be displayed. The device will remain in a state of malfunction. Other connected devices can be operated.

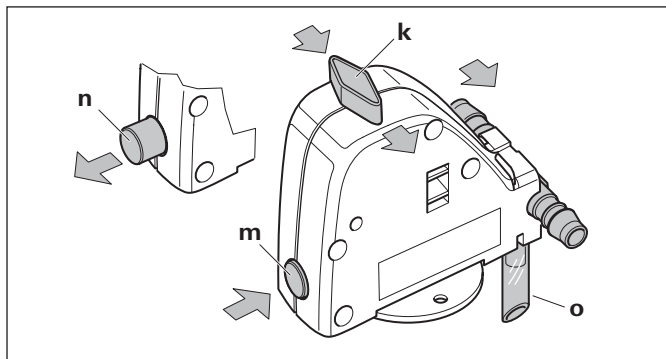


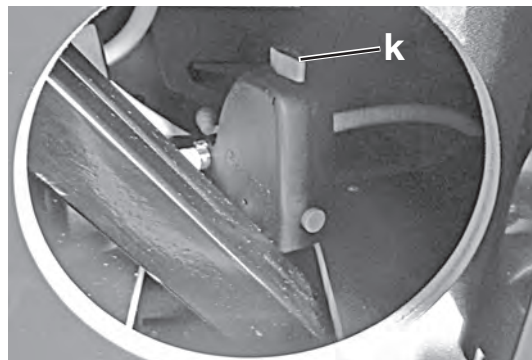
Diagram of Frost Control

## FrostControl

FrostControl is a non-electric safety or drain valve. If there is a risk of sub-zero temperatures it automatically drains the content of the boiler via a drain outlet.

If the system is under excess pressure intermittent pressure equalisation will automatically take place via the safety valve.

- k** Rotary switch position “ON”
- m** Push button position “CLOSED”
- n** Push button position “DRAIN”
- o** Drain outlet (to the outside through the vehicle floor)



Safety valve for boiler (Frost Control)

### To activate

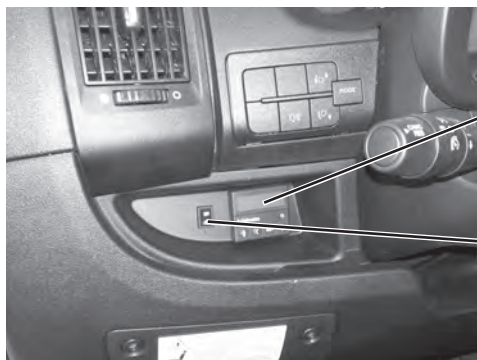
- Push in the knob at position (**m**) slightly and, at the same time, move it 90° towards position (**k**).
- If the switch is in position (**k**), the knob will remain in position (**m**).

### To deactivate

- Turn the switch at position (**k**) by 90° so that it is parallel to the frost control.
- At the same time, the knob will jump from position (**m**) to (**n**).



The drain valve can only be closed manually using the push button (Position **m**) and the boiler filled if the valve temperature is above approx. 7°C. If the temperature of the safety/drain valve is lower than approx. 3°C, the push button will be ejected (Position **n**) and the contents of the boiler will be drained off via the drain outlet (**o**).



Control switches on dashboard

Toggle switch

Control panel for preselection timer

## 10.2.2 Webasto auxiliary heating



- Set the heating in the vehicle to “warm” before switching on the heating device.
- Set the vehicle's heater fan to the lowest possible level when the heating is in continuous operation. This guarantees an optimally regulated current supply.
- To heat the vehicle quickly, set the fan to a higher level.

### Toggle switch motor/cabin



Motor icon pressed:

- The heating device will also heat the vehicle's motor. It is also possible to heat the superstructure.



Cabin icon pressed:

- The heating device will predominately heat the front area of the vehicle.
- Duration of heating time: unlimited, irrespective of control panel. This enables the heating system to remain in continuous operation, as is customary in a van.



In general, the heating system may also be used while driving, e.g. to supplement the heating for the motor, which may not be sufficient.

Before leaving the van, check whether the heating system should continue to operate while the vehicle is empty. If not, the heating system must be turned off manually.



The control panel can be used to activate the preselection timer. Please refer to the manufacturer's separate operating manual for information on the functions of the preselection timer and further instructions for the heating device.

### 10.3 Refrigerator



Please refer to the manufacturer's separate operating instructions before using the refrigerator.

#### Storing food

- Food should always be stored in closed containers, aluminium foil or similar materials.
- Never store heated food in the refrigerator; always let it cool off first. If possible, store only pre-cooled goods.

#### Absorber refrigerator\*

- Goods that might emit readily volatile or flammable gases must not be stored in the refrigerator.
- Always store perishable food directly next to the cooling fins or as close to the bottom of the refrigerator as possible.

The freezer compartment is suitable for making ice cubes or for storing frozen food for a short period of time. It is not suitable for freezing food.



The refrigerator SlimLine cabinet can support a maximum load of 35 kg.



**SlimLine Refrigerator**

#### Compressor refrigerators

The refrigerator runs on the 12V battery. The cooling capacity can be influenced by:

- the environmental temperature,
- the amount of food to be conserved,
- how frequently the door is opened.

#### Refrigerator SlimLine (for Vantana Premium only)

The compressor is located in the vehicle floor beneath the kitchen. Please note that, should noise be generated in this area, it comes from the compressor and need not indicate that the vehicle is defect.

## Refrigerator door lock



While driving, the refrigerator door must always be closed and locked.

### To open

- Tilt the handle ① down to release the lock and swing the door open or pull the refrigerator drawer out.

### To close

- Swing the door shut or push the refrigerator drawer back to its original position until it noticeably clicks into place.



**Danger! Risk of crushing!** Do not touch the guide rails of the refrigerator drawer nor the pneumatic springs on the doors.

Condensation may form if the locks on the doors have not been completely shut. This can result in moisture damage.

Do not pull down on the opened refrigerator drawer.

## To operate



When operating the refrigerator for the first time, odours may become noticeable. These will evaporate after a few hours. Ensure that the living area is thoroughly aired.

The refrigerator runs on the ancillary battery. Switch the refrigerator on and off via the TFT control panel (**see 7.3, TFT control panel**). The temperature level can be set in the submenu. The

thermostat regulates the temperature as follows:

**1** = lowest cooling capacity

**5** = highest cooling capacity



The temperature set for the refrigerator will be reached after a few hours.

## Operating methods



### “Automatic” operation:

The compressor operates at medium speed. It shuts itself off when the desired temperature has been reached. It switches itself back on when a predefined temperature is exceeded.



### “Night mode” operation:

The compressor operates at reduced speed. After running for 6 hours, the system automatically switches back to “Automatic” mode.



### “Super cool” operation:

The compressor operates at the highest speed, but for no more than 30 minutes, until the desired temperature has been reached. Then the system automatically switches back to “Automatic” mode.





**Kompressor Refrigerator  
Vantana ONTOUR (70 l)**



**Kompressor Refrigerator Van-  
tana De Luxe (90 l)**

### Refrigerator Vantana ONTOUR / Vantana De Luxe

The compressor refrigerator is located at the side of the kitchen unit. Depending on the model, it holds 70 or 90 liters. The refrigerator door opens towards the entrance door of the van.

#### Refrigerator door lock



While driving, the refrigerator door must always be closed and locked.

### Vantana ONTOUR

#### To open

- Pull the right-hand holder towards you and then open the door to the left.

#### To close

- Close the door to the right until you can feel it lock into place.



**Danger!** Risk of crushing! Never touch the hinge.

### Vantana De Luxe

#### To open

- Carefully pull the handle of the refrigerator towards you and then open the door to the left.

#### To close

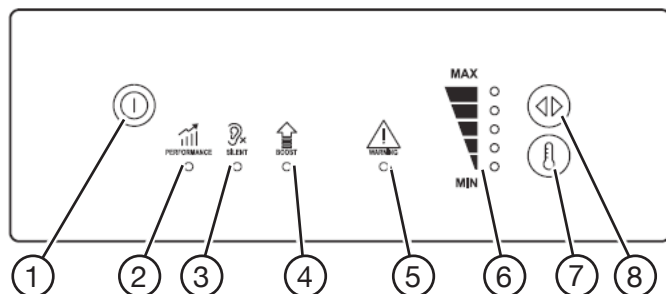
- Close the door to the right until you can feel it lock into place.



The air required to ventilate the compressor is sucked in beneath the refrigerator door. Ensure that the ventilation opening is neither blocked nor adversely affected in any manner.

## Operating methods

### Vantana ONTOUR

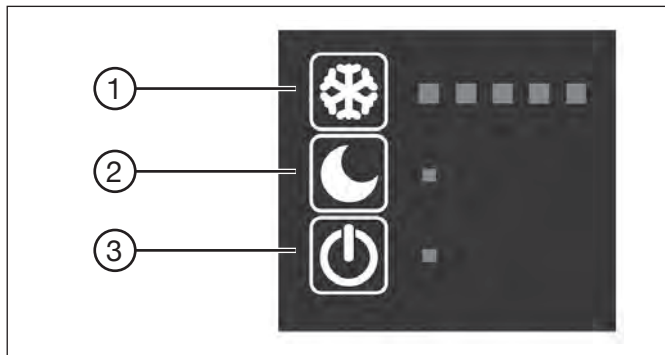


#### Control panel

- ① **On/Off switch**  
Switch the refrigerator on or off by pressing this button for 5 seconds.
- ② **LED display for performance mode**  
All 5 cooling stages (1-5) can be selected with this button.
- ③ **LED display for silent mode**  
When in this mode, the fan and compressor run at reduced speed. Three cooling stages (1-3) can be selected.
- ④ **LED display for boost mode**  
In this mode, the refrigerator runs on maximum cooling capacity. No cooling stage can be selected in this mode.

- ⑤ **LED display for malfunctions**  
Lights up as soon as there is a malfunction.
- ⑥ **LED display for cooling levels from 1-5**  
This shows the selected cooling level.
- ⑦ **Button to select temperature**  
Press this key to set the desired temperature.  
One bar: lowest cooling capacity  
Three bars: medium cooling capacity  
Five bars: highest cooling capacity
- ⑧ **Button to select a mode**  
Press this button to switch from one mode to another.  
The flashing LED shows the mode that has been selected.

## Vantana De Luxe



Control panel

### ① Temperature adjuster (Level 1-5)

Press the button for one second to activate it. Then press the button again to select the desired cooling capacity.

### ② Night mode button

Press this button to activate night mode (a blue light will shine when it is activated). When in night mode, the cooling system operates at low speed, reducing noises and the amount of energy used to a minimum.

### ③ On/Off button

Press this button for 2 seconds to switch the refrigerator on or off.



Select night mode only if the temperature inside the vehicle is below 30°C.

Always ensure that night mode has been switched off again as soon as the temperature inside the vehicle exceeds 30° C.



Absorber Kühlschrank

## Absorber refrigerator\*

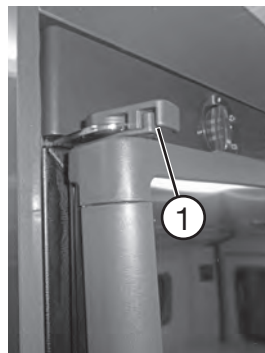
If the external temperature is high, full refrigerating capacity can only be ensured by means of sufficient ventilation. To achieve better ventilation, ensure that the side of the mobile home with the refrigerator ventilation grids stands in the shade (**see Chapter 5.1**).



Environmental conditions influence the performance of the refrigeration unit. The system reacts sluggishly to changes in the thermostat regulator, loss of cold when opening the door or storing goods. Use the winter cover if the temperature is below +10°C (Dometic accessory).

If the temperature stays above +32°C, an additional fan (Dometic accessory) should be installed.

Turn on the refrigerator at least 12 hours before putting anything in it.



Refrigerator door lock: ventilation position

## Refrigerator door lock



While driving, the refrigerator door must always be closed and locked.

### Opening

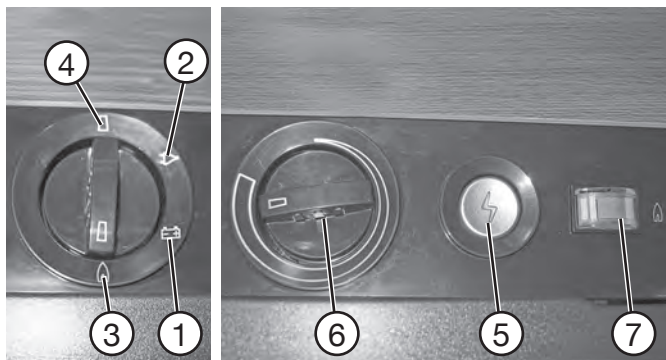
- Turn the lock ① to the side as far as it will go until the refrigerator door can be opened.

### Closing

- Shut the refrigerator door and then turn the lock ① back to its original position.



If not in use for a longer period of time, the refrigerator should be switched to the ventilation position to prevent bad odours. The illustration above shows the correct ventilation position.



Operating the refrigerator

## Modes of operation

Three modes of operation are possible for the refrigerator. The desired mode of operation is set using the energy selection switch.

- **12V operation:** power is supplied via the generator ① (motor is on).
- **230 V operation:** power is supplied from an external source ②.
- **Liquid gas:** gas bottles from the van ③.

## 12 V operation

12 V operation can only be used while driving, when the motor is running. When resting or if you have stopped for a longer period of time, turn off the 12 V operation and, if required, select another mode of operation.

- Turn the energy selector switch to battery operation ①.
- 12V operation will only function if the vehicle's motor is running.
- The refrigerator runs without a thermostatic control (continuous operation). 12 V operation should, therefore, only serve to maintain a temperature which has already been achieved.
- To turn the refrigerator off turn the energy selector switch to the O position ④.

## 230 V operation

- Turn the energy selector switch to mains ②.
- Use the thermostat ⑥ to regulate the temperature. No absolute temperature values have been assigned to the temperature levels.
- To turn the refrigerator off turn the energy selector switch to the O position ④.

## Gas operation

- Turn the energy selector switch to gas operation ③.
- Open the main stop valve on the gas cylinder and the "Refrigerator" gas stop valve.
- Turn open the thermostat ⑥ completely and hold it pressed down. The refrigerator will ignite by pressing the button for manual ignition ⑤.

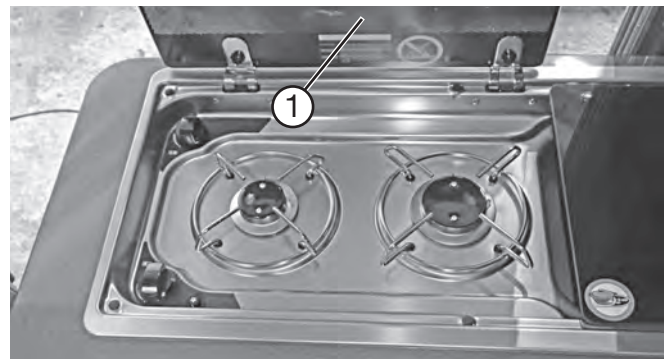
- If gas operation has been activated, then the indicator in the control window will move into the green zone ⑦ (model-specific).  
Only release the button when the the indicator is in the green zone.
- Use the thermostat ⑥ to regulate the cooling capacity.  
No absolute temperature values have been assigned to the temperature levels.
- To turn the refrigerator off turn the energy selector switch to the O position ④
- Close the main stop valve on the gas cylinder and the “Refrigerator” gas stop valve.



It is not permitted to operate the refrigerator with gas

- while driving
- at petrol stations
- while the vehicle is being transported by means of a transport or towing vehicle.

This may cause a fire.



2-burner gas cooker

## 10.4 Gas cooker

The kitchen unit in the van is fitted with a 2-burner gas cooker.

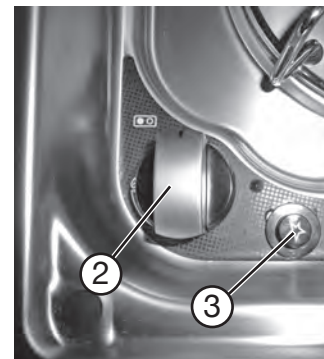
### Before initial operation

- Open the bottle valve and the quick-action stop valve in the gas pipe.
- The skylight or the kitchen window must be open when operating the cooker.
- Ignition points which must be pressed for ignition when turning on the gas device should spring back to their original position after being pressed.



Please observe the enclosed manufacturer's operating instructions.

Never use the cooker or other devices extracting combustion air from the interior of the vehicle to heat the vehicle. If this is ignored there is an acute risk to life due to a lack of oxygen and the odourless carbon monoxide which could be generated. Do not operate the cooker when the glass covering is closed.



Operating elements for gas cooker

### Operation

- Use the main switch on the Control Panel to turn on the 12V power supply.
- Lift up the glass cover ① (page 177) .
- Turn the adjusting knob ② of the burner you wish to use to the ignition position (large flame), press it and hold it pressed.
- Use the igniter ③ to ignite the flame.
- Continue to press the rotary switch ② for a further 5-10 seconds to ensure that the automatic flame guard takes effect.

- Release the rotary switch ② and turn to the desired setting (large or small flame).
- If ignition was unsuccessful, repeat the procedure.
- To turn off the gas flame, turn the rotary switch ② back to the “0” position
- Close the main gas stop valve on the gas cooker.



Use oven gloves or potholders when handling hot pots, pans or similar objects. **You may be burned!**

Do not allow the flame to burn higher than the top edge of your pot; keep it lower.

After cooking, leave the glass cover ① (page 177) open until the burners stop giving off heat. Otherwise, the glass cover could burst.

Never store easily flammable objects such as dishtowels, serviettes, etc. near the cooker. **Danger of fire!**



## Rooftop Air Conditioning

### 10.5 Rooftop Air Conditioning \*

The air conditioner is located instead of the roof bonnet on the ceiling in the sleeping area.

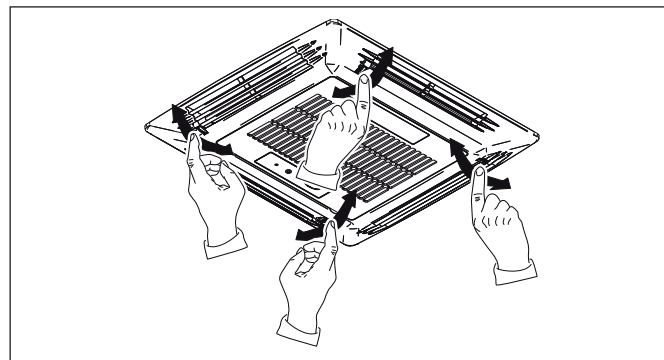
Use the TFT display to set the roof air-conditioning system (see Chap. 7.3 Installation of electrical devices).

To operate the air conditioner correctly and optimize its performance, you should observe the following:





- Ensure sound thermal insulation; seal chinks and cover up glass areas.
- Do not plug or cover up air intakes and openings.
- Do not spray water into the air conditioner.
- Keep all easily inflammable material away from the system.
- Keep all doors and windows closed and only air thoroughly occasionally. When the windows are open, warm (and, therefore, humid) air will flow into the camper where it is cooled down. The resultant moisture will condense inside the camper.



**To set the direction of ventilation**

#### **To set the direction of ventilation**

The air supply within the vehicle can be regulated by setting the air nozzles.



## 10.6 Satellite System\*

The satellite system is CI-BUS compatible and, therefore, it can be controlled by means of the control panel next to the entrance.



More information on how to operate the system via the control panel can be found in **Chapter 7**.

The satellite system is suitable for all types of receivers or any TV with a satellite tuner. It offers special functions, e.g. the normal TV programme can be transmitted via cable while, at the same time, another programme can be streamed on mobile devices. When the programme is changed, the system automatically aligns itself to other satellites.



- When driving, the satellite system must be lowered to its park position. Increasing the normal height of the trailer by means of an antenna that has not been lowered can increase the risk of accidents. The car driver is solely responsible for the condition of the superstructures and fittings. The antenna is automatically lowered when the motor is started.
- A maximum speed of 130 km/h is permitted.
- Should there be a gale or thunderstorm, both the turnable satellite dish as well as the vehicle itself may be damaged.



- The satellite system has an emergency stop in the event of an overload.
- Malfunctions or damage to the satellite system itself may occur if it is operated outside the suitable temperature range of -20° C to +45° C.
- When driving, the antenna is subject to the force of vibration. Depending on how often you drive, check the system regularly to determine whether it is firmly secured and tighten any loose parts.
- Please refer also to the separate manufacturer's operating instructions.

## Chapter 11: Accessories

Note the detailed operation instructions, installation instructions and circuit diagrams from the manufacturers when using accessories. These are located in your service package.

- Any changes to the status of the van as set by the manufacturer may endanger the driving performance and roadworthiness of your vehicle.
- Any accessories, add-ons, modifications or mounted parts that have not been approved by HOBBY may cause damage to the vehicle and impair its roadworthiness. Even if an expertise, general type approval or design approval has been provided for these parts, this does not ensure the orderly condition of the product.
- HOBBY cannot accept liability for any damages caused by parts or changes that have not been approved by HOBBY.

The following table includes a list of weights for accessories. If these parts are carried in or on the van and are not included in the standard scope of delivery, they must be taken into consideration when determining the full load.

Object	Weight[kg]
<b>Motorisation / Chassis (cannot be retrofitted)</b>	
FIAT Ducato 2.3 I - 130 Multijet II, 6-gear manual, 2287 ccm, 96 kW/130 PS	30.0
FIAT Ducato 2.3 I - 150 Multijet II, 6-gear manual, 2287 ccm, 110 kW/150 PS	41.0
FIAT Ducato 2.3 I - 180 Multijet II, 6-gear manual, 2287 ccm, 130 kW/177 PS	41.0
FIAT Light Chassis, 3,500 kg	20.0
<b>Base vehicle</b>	
Air-conditioning, automatic	0.0
Automatic transmission, FIAT Comfort-Matic	17.0
Bumpers, front, painted colour of vehicle	0.0
Cruise control	0.2
Dashboard with chrome rings	0.0
Diesel tank, 120 litres instead of 90 litres	28.0
Fog lights	2.0
Headlamps with black frame	0.0
Leather steering wheel and gear knob	0.5
LED daytime running lights	0.2
Radiator grille, black	0.0
Tow coupling	29.0

Object	Weight[kg]
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**Design variations**

Varnish: choose from silver, black or graphite-grey	0.00
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**Rims**

Light alloy rims 16", Original FIAT (not in connection with 115 PS engine and 3.3 t)	16.00
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**Driver's cab**

Driver's and passenger's seats upholstered in interior fabric	3.0
Floor mat in driver's cab	2.5
REMIS pleated folding system for front and side windows in driver's cab	3.5
Thermal curtains incl. insulation of floor room	4.5

**Windows**

Framed window, hinged, double glazed and tinted, for standard window	8.0
Framed window, hinged, double glazed and tinted, in sleeping area	4.0

**Superstructure**

Bicycle carrier THULE for 2 bicycles, black, carrying capacity: 35 kg	9.5
---	-----

Object	Weight[kg]
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Entrance step, electrically extendable, width 550 mm	1.6
LED entrance light with integrated water run-off	0.0
Roof bonnet Dometic-Seitz Micro-Heki 280 x 280 mm with pleated blinds and insect screen for bathroom	2.0
THULE-OMNISTOR awning in black, width 375 cm - 400 cm	29.5 - 31.5

**Upholstery combination**

"Avus" / "Mali" / "Capri" / "Nevada" / "Taiga" / "Patch" / "Florenz" / "Sari" / "Vigo"	0.0
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**Living room**

Fitted carpet in living room, removable	10.00
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**Kitchen**

DOMETIC refrigerator, 80 l, 12V/230V/ + Gas, absorption technology	0.00
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**Sleeping area**

Cushion for converting seating arrangement into a bed	2.0
---	-----

**Water/gas/electricity**

Additional AGM vehicle battery 12 V / 95 Ah	28.0
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Object	Weight[kg]
Additional socket 12 V (selectable installation site)	1.0
Additional socket 230 V (selectable installation site)	0.9
Assembly preparation for rear view camera	0.0
External socket, 230V, incl. satellite/TV connection	0.4
Gas filter TRUMA for Mono- or DuoControl	0.4
Gas pressure regulator TRUMA DuoControl incl. automatic changeover system, crash sensor and de-icer	3.0
Gas pressure regulator TRUMA MonoControl incl. crash sensor	1.0
HOBBYCONNECT, remote control for on-board equipment via app	1.2
Preparation for solar system	1.0
Remote indicator for gas pressure regulator TRUMA DuoControl	0.6
TFT control panel incl. CI BUS and Battery Management System with HELLA battery sensor	0.9
USB twin socket, 1 each for living room and bedroom	0.0
Waste water tank, 90 l, heated	1.0
Wireless alarm system with gas alarm for narcotic gases, propane and butane	1.0
<b>Heating/air-conditioning</b>	
Auxiliary heating WEBASTO Thermo-Top	9.5

Object	Weight[kg]
LCD control panel TRUMA Combi CP Plus	1.1
Preparation for roof air-conditioning system	1.5
TRUMA heating system Combi 6 E instead of Combi 4	1.1

### Multimedia

DAB+ for navigation system	0.0
Extendable arm for flat screen TV	3.0
LED flat screen 19" incl. tuner/receiver and DVD player	2.7
Navigation system DAB+ ready incl. CD/ DVD player, rear view camera and pitch database	4.7
Preparation for SAT system	0.7
Preparation for TV connection	0.1
Satellite system KATHREIN CAP 650 incl. TWIN-LNB	15.0

# Chapter 12: Maintenance and Care

## 12.1 Maintenance

### Maintenance intervals

There are stipulated maintenance intervals for the motor home and its equipment.

#### The following applies for maintenance intervals

- Have the first maintenance carried out by a HOBBY dealer 12 months after the vehicle was first registered.
- All further maintenance should be carried out once a year by a HOBBY dealer.
- The maintenance of the basic vehicle as well as all built-in equipment should be carried out at the intervals given in each operating manual.



The inspection of the gas system and flues, for which a fee is payable, should be carried out regularly by a liquid gas expert in accordance with national regulations (annually in Great Britain). The inspection of the gas facilities (subject to extra cost) is to be repeated every 2 years by a liquid gas expert. This inspection is to be conducted and certified in accordance with the German Association of Gas and Water Experts, worksheet G 607, and EN 1949. The operator is responsible for scheduling this inspection.



Replace safety regulator knobs and hoses after 10 years at the latest! Note that high-pressure gas hoses must be replaced after 5 years.

For safety reasons, spare parts for equipment must conform with the manufacturer's instructions and must be installed by him or a duly authorised representative.



Also note the maintenance intervals for the basic Fiat vehicle.

Hobby's voluntarily granted (5 year) warranty against leaks in the van, as set out in the guarantee conditions, will only take effect if the (chargeable) inspections for leaks were carried out correctly. To this end, the mobile home must be taken to a Hobby dealer 12-18 months after receipt of the vehicle. After the initial inspection for leaks, this inspection must be repeated every 12 months during the warranty period.

Hobby recommends that you contact a service partner before driving there and inquire whether they have the necessary capacity (e.g. an adequate car lift) in order to avoid any misunderstanding.

## 12.2 Brakes

The components in the brake system are part of the General Type Approval ("Allgemeinen Betriebserlaubnis", ABE).

If you change the components in the brake system, the type approval expires. Any changes are only possible if they have been released by the manufacturer.



It is in your own interest to have the brakes checked regularly by your Fiat workshop.

### The following applies when maintaining the brake system

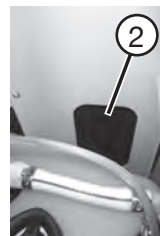
- Check the level of brake fluid regularly.
- Check the brake system and brake hoses regularly for leakage. Rodents often gnaw at rubber hoses.
- Use only brake fluids with the same qualities as those fluids already in the brake circuit.



For further information, please refer to the Fiat Ducato operating instructions.



Access Fig. 1



Access Fig. 2



Access Fig. 3



Access Fig. 4

## 12.3 Changing the rear light bulbs

There is a cut out ① in the upper furniture cover to the right of the rear door which can be removed (**Fig. 1, model-specific**). The rear light bulbs can be accessed via a further opening ②.

Alternatively, it is possible to access the rear light bulbs via the upper right-hand open compartment (**Fig. 3, model-specific**). Remove the cover by inserting a finger into the hole ③ to pull the cover out.

In some models, it is possible to access the rear light bulbs on the left side of the gas-bottle container (**Fig. 4, model-specific**). Loosen the screws to remove the cover ④.



If several bulbs have to be replaced, take care to ensure that they are not accidentally switched and that everything goes back in its original place.  
Before changing bulbs, disconnect the power supply in the van and switch the ignition off.

Bulbs can be hot!

Ensure that no liquids (e.g. rain) run into the covers.

## 12.4 Airing

For a comfortable climate inside the van, there must be sufficient ventilation. This also avoids corrosive damage due to condensation.

### Condensation is caused by

- insufficient volume inside the van
- breathing and perspiration of the passengers
- bringing in damp clothing
- operating a gas cooker



Ensure that there is a sufficient exchange of air to avoid damages due to the build-up of condensation!

To ensure the ideal air exchange, open all of the cupboard and wall cabinet doors when airing and reheating the van.

## 12.5 Care

### The following applies for their care:

- Clean plastic parts (e.g. fenders, skirts) with water of up to 60° C and mild household cleansers.
- Clean greasy or oily surfaces with spirits.



Wash the vehicle only in places provided for this purpose.

Using cleaning materials sparingly. Aggressive cleansers, such as wheel rim cleaners, damage the environment.



Use only dishwashing liquid or commercial cleaning agents, always taking care to follow the instructions for use, and test the cleaning agent to make sure it is suitable.

### Cleaning products not recommended for use

- abrasive cleaning agents (scratch the surface)
- cleaning agents that contain acetone (immediately damage the plastic)
- dry cleaning products
- diluents



- alcohols
- aggressive or solvent-based cleaners
- cleaners from the chemical group such as ketone, ester and aromatic solvents
- aromatic hydrocarbons (e.g. all automotive fuels)

Direct contact with plastics such as PVC, soft PVC and similar products (e.g. stickers) must be avoided at all cost.

It is not possible to avoid transmitting plasticizers when solvent-based contents come into contact with the aforementioned plastics and this causes the parts to become brittle.

## Cleaning the exterior

The vehicle should only be washed when it is dirty.

### The following applies when cleaning the exterior:

- Rinse the vehicle with a weak jet of water.
- Wash the vehicle with a soft sponge and a commercial shampoo solution. Rinse the sponge often.
- Then rinse with a generous amount of water.
- Dry the vehicle with a suede cloth.
- After washing the vehicle, leave it standing outside to dry off completely.



Dry the headlights and sockets thoroughly, as water collects there easily.

## Washing with a high pressure cleaner



Do not spray stickers and external decors directly with the high pressure cleaner as they could peel away as a result.

Before washing the van with a high pressure cleaner, study its operating manual carefully. Ensure that the high-pressure nozzle is at least 700 mm away from the van when washing it. Please note that the water jet is under pressure when it comes out of the cleaning nozzle. Incorrect handling of the high pressure cleaner can result in damage to the van.

The water temperature should not exceed 60°C. Keep the water jet moving while washing. The spray from the high-pressure cleaner must never be pointed directly at the cracks of the doors or windows, acrylic windows, ventilation grills in the refrigerator, service flaps, waste gas flues or skylights. This may damage the vehicle or water could get inside the vehicle.

### The following applies when waxing the surfaces

- The varnished surfaces should be treated occasionally with wax. Follow the application instructions given by the wax manufacturers.

### The following applies when polishing the surfaces

- In exceptional cases, use polish to refinish weathered varnished surfaces. We recommend solvent-free polishing paste.



Use polish only in special cases and as seldom as possible, because polish removes the top layer of varnish. Polishing too often will result in wear and tear.

### The following applies for tar and resin stains

- Tar and resin stains as well as other organic stains can be removed with petroleum ether or spirits.



Do not use aggressive solutions such as products containing ester or ketone.

### The following applies for damages

- Repair damages immediately to avoid further damages due to corrosion. Ask your HOBBY dealer for assistance.

### Skylights, windows, mirrors and doors

Window panes require particularly careful treatment.

### The following applies for their care

- Rub the rubber seals around doors and windows lightly with talcum powder.

- Clean acrylic glass panes only with a clean, wet sponge and a soft cloth. Cleaning with a dry cloth may scratch the panes.



Wash panes and mirrors with pure water only. Never use aggressive cleaning agents that include softeners or solvents!

Never use razor blades to clean the mirror or window panes! Wipe mirrors and windows with a damp microfibre cloth or leather cloth, wiping in circles. Do not use any cleaning solutions.

You will find talcum powder in auto accessory shops.

### Roof



To prevent the varnish on the roof of the mobile home from corroding, the roof plate should be cleaned at least once a year.

### Cleaning the interior



To reduce problems arising from dampness, use water sparingly when cleaning inside.

### The following applies for cushions, upholstery and curtains

- Clean cushions with a soft brush or Hoover.

- Have very dirty upholstery and curtains dry-cleaned. Do not wash them yourself!
- If necessary, wash them carefully using the foam from mild-action detergent.

### Cleaning instructions for materials that contain Teflon



- Always treat spots immediately.
- Sponge spots, but do not rub them.
- Work from the edge towards the middle of the spot.
- Never use household cleaners to remove spots.
- Hoover cushions regularly to remove any dirt that may have collected.

### We recommend the following methods for cleaning

#### Method A:

- Use only commercial cleaning agents that have a water basis.
- Alternatively, add two tablespoons of ammonia to 1 litre. Dip a cloth into this solution and gently sponge the spot. Turn the cloth over so that you are using a clean cloth to touch the spot.

This method is particularly suitable for removing:

- wine, milk, lemonade
- blood

- biro, ink
- urine, sweat
- mud
- vomit

#### Method B:

- Use only mild, water-free solvents for dry cleaning.
- Dampen the cloth and proceed as described in method A.

This method is particularly suitable for removing:

- wax, candles
- pencil

Chocolate or coffee should only be washed out with luke-warm water.

### The following applies for the fitted carpet (model-specific/optional):

- Clean with a Hoover or brush.
- If necessary, treat with carpet shampoo or a shampooing machine.

### The following applies for the PVC flooring:



Sand and dust can damage the surface of PVC flooring that is walked on regularly. When in use, clean the floor daily with a Hoover or a broom.

- Use cleansing agents for PVC floors and clean water when washing the floor. Do not place fitted carpets on a wet PVC floor, as the fitted carpet and the PVC flooring could become glued together.
- Never use chemical cleansing agents or steel wool, because this will damage the PVC flooring.

#### **The following applies for furniture surfaces**

- Clean the surface of wooden furniture with a damp cloth or sponge.
- Rub dry with a dust-free cloth.
- Use mild furniture polish.

#### **The following applies for the toilet**

- Clean with a neutral liquid cleanser and a cloth that does not scratch.
- Do not use a vinegar concentrate to clean the toilet and the water system or to decalcify the water system. Vinegar concentrate can damage gaskets or parts of the system.
- The rubber seals of the toilet should be cleaned regularly with plain water and a lubricant for seals (not Vaseline or any other vegetable fats) should be applied. Applying this regularly to the washer of the valve and other seals in the toilet will ensure that they stay flexible and function longer.

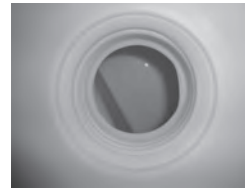


Do not pour any corrosive substances down the drains. Do not pour boiling water down the drains. Corrosive substances and boiling water damage drain pipes and syphons.

#### **The following applies for the sink and the cooker**

- Clean metal surfaces with normal household cleaners or special stainless-steel cleansing agents.

#### **The following applies for the fresh water tank**



**Fresh water tank**

#### **Cleaning the fresh water tank**

- After emptying the water from the fresh water tank, use a cloth to remove the remaining liquid that has collected in the groove.

**The following applies for built-in equipment**• **Truma Combi heating system:**

- The boiler must be descaled regularly (at least twice a year). We recommend using suitable commercial agents for cleaning, disinfecting and taking care of the boiler. Products that contain chlorine are unsuitable.
- The chemical method used to control microorganisms in the device can also be supplemented by regularly heating the water in the boiler to 70° C.
- The safety / outlet valve (FrostControl) must be operated regularly (at least twice a year) to remove lime deposits and to ensure that it is not blocked.

• **Refrigerator**

- Check the drain-off of the condensation in the refrigerator regularly. If necessity, clean the condensation drain-off. If this is clogged, the condensation will collect on the floor of the refrigerator. The condensation drain-off is located at the back in the middle of the drip tray (SlimLine)..
- Refrigerator seals should be rubbed once a year with talcum powder to keep them supple and the expandable fold should be checked for tears.
- The space behind the refrigerator should be hoovered and cleaned regularly. The ventilation grille should also be kept clean (absorber refrigerator\*).



Remove all spray cans with cleaners and polishes from the vehicle after finishing the upkeep! Otherwise, there is a danger of explosion at temperatures over 50° C!

**12.6 Winter Lay Up for the Van**

For many people, the camping season ends when the temperature starts to fall. Your van must be properly prepared for its winter lay up.

**The following general rules apply**

- Only leave your van in a closed space if it is dry and well-aired. Otherwise, it is better to leave your van in the open.
- To protect the tyres, jack up the van or move it slightly to a new position every two months.
- Close all gas bottles and emergency shutoff valves.
- Disconnect (or, ideally, remove) the battery and store it safe from frost. Check it about once a month to see if it is still charged; if not, charge it.
- Check the antifreeze in the cooling system and, if necessary, top it up.
- Leave space between tarpaulins and the camper so as not to hamper ventilation.

### The following applies for the external structure

- Wash the van thoroughly (see 12.5).
- Check the vehicle for damages to the varnish and other damages. If necessary, repair these damages and carry out any other necessary repairs.
- The exterior should be treated with wax or a special polish for varnish.
- Use a protective agent to protect the metal parts of the chassis against rust.
- Check the undercarriage for damage and, if necessary, repair it. In case of severe damages, contact your dealer.
- Ensure that no water can get into the venting on the floor, heating system and venting of the absorber refrigerator\* (mount winter covers\*).

### The following applies for tanks and containers:

- Clean, disinfect, descale and completely empty all water pipes and faucets. Leave faucets open.
- Clean and empty the fresh water tank (see Chapter 8 Water).
- Clean and empty the waste water tank.
- Clean and empty the toilet flushing tank and the excrement tank. Clean the toilet valve, apply a lubricant for seals and leave it open.

- Completely empty the therme/boiler.
- If your van is equipped with a hot-water heater: rinse the water heater thoroughly and empty all of the water.

### The following applies for the interior fittings

- Clean the interior of your van. Hoover carpets, cushions and mattresses. If possible, store them outside the van. Otherwise, place them in such a way inside the vehicle that they do not come into contact with condensation.
- Use soapy water to clean linoleum and smooth surfaces.
- Empty and clean the refrigerator. Leave the refrigerator door open or in the ventilation position (see Chap. 10.3 Refrigerator).
- After cleaning them, leave stowage spaces, cupboards, drawers and furniture flaps open to facilitate air circulation.
- Leave vents for forced ventilation open. If the van is kept in a closed space, you can leave the skylight open.
- Air the van thoroughly every four to six weeks when the weather is dry.
- Set up a dehumidifier (such as salt) inside the van and dry the granulate or change it regularly.
- Open the battery's circuit breaker.
- If necessary, heat the camper to prevent the build-up of mould from condensation.
- Switch off the 12 V main switch.

## 12.7 Winter Operation

### Preparations

Your van has been designed to allow you to use it to a certain extent in winter. If you really wish to camp in winter, we recommend that you optimize your van to meet your personal requirements. Your dealer will be pleased to advise you.

#### The following applies for your preparations:

- Check the vehicle for damage to the paintwork or from rust and, if necessary, repair it.
- Ensure that water cannot run into the ventilation and de-aerating and heating systems.
- Use a wax-based protective agent to protect the metal parts of the undercarriage against rust.
- Preserve varnished external surfaces with suitable agents.
- Fill the petrol tank with winter diesel; check the antifreezer in the windshield cleaning unit and the coolant.



Please also refer to the information given by the manufacturers of built-in devices regarding winter.

#### The following applies for ventilation

During operation in winter, condensation is caused when using the camper in low temperatures. Sufficient ventilation is extremely important to ensure that the quality of the air inside the

camper is good and to avoid damages to the vehicle caused by condensation.

- Do not shut vents for forced ventilation.
- Set the heating to maximum power when heating up the van. Open stowage spaces, cupboards, drawers, furniture flaps, curtains, shades and plissés. This enables you to achieve optimum ventilation and de-aerating.
- Only heat the van when the recirculation air system is switched on.
- Every morning, air all of the cushions, mattresses and stowage spaces and dry any damp spots.
- Air thoroughly with fully opened doors and windows several times a day.
- If the outside temperature is under 8° C, winter covers\* should be mounted over the ventilation grilles of the refrigerator.



If, despite all of these measures, condensation forms, simply wipe it away.

Before entering the vehicle, remove the snow from your clothes and shoes to prevent an increase in humidity.

#### The following applies for heating

- Both the air intake as well as the exhaust gas openings of the heating system must be kept free of snow and ice.

- It takes longer to heat up the vehicle in winter, especially to heat hot water.
- Do not let the interior cool down completely when you are away or at night; set the heating to low and leave it on.



Continue to heat the vehicle while you are sleeping!

- The van uses considerably more gas in winter than in summer. Two 11 kg bottles of gas will be used up in just under one week.
- Therefore, should you stay longer in one place, it is worthwhile to set up an outer tent. It will help to acclimatise the van and keep the dirt out.

### **The following applies for tanks and containers**

- If the interior is sufficiently heated, the fresh water tank, water pipes and boiler should not freeze. Fill all of the water containers only after the interior has been thoroughly heated.
- When the heating is on, the waste water tank is heated. In severe frost, also add an anti-freezing compound or table salt to the waste water. If the vehicle is not being used, the waste water tank must be emptied completely.
- The toilet can be used normally, even in cold weather, as long as the interior of the van is heated. The excrement tank should be emptied if there is danger of frost.

## **At the end of the winter season**

### **The following applies for the care of the vehicle**

- Thoroughly wash the underbody and the motor. This removes corrosive thawing agents (salts, alkali).
- Clean the exterior and use normal car wax to preserve metal parts.
- Do not forget to remove flue extensions, etc.

## **Saving energy in winter**

It is very easy to save energy inside your van. This applies especially to heating in winter.

### **The following applies for saving energy**

- Meter the exact use of ventilation in the vehicle and the heating valve.
- Attach the winter mats to the side windows and windshield of the driver's cab (e.g. thermal curtain\*, **see 6.7**).
- Attach the insulating mat between the driver's cab and the interior of the van (not included in scope of delivery).
- Open the outside door as seldom and briefly as possible.
- If you are camping in winter, attach a small outer tent. This will offer protection against the cold.

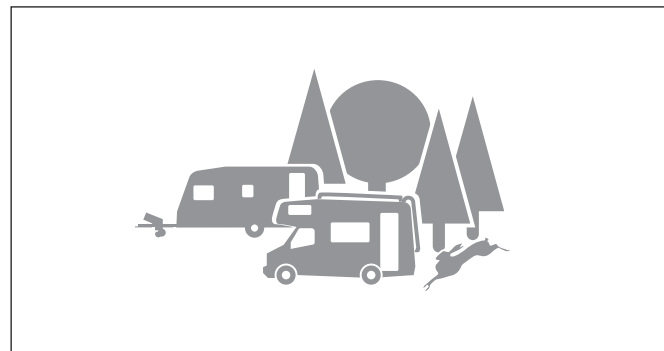


## Chapter 13: Sanitation and Environmental Protection

### 13.1 The environment and traveling

#### Environmentally fair use

Naturally, motor home, caravan and van owners and users are especially responsible for the environment. Always use your vehicle in an environmentally friendly way.



#### The following applies for environmentally fair use

- If you plan on spending a longer period of time in cities and communities, find out in advance about special campsites for vans and mobile homes and use them.
- Do not spoil the peace and cleanliness of nature.
- Dispose of waste water and rubbish in the proper way.
- Act in an exemplary manner so that motor home, caravan and van users are not generally regarded as environmental polluters.



#### The following applies for waste water

- Collect waste water on board only in built-in waste water tanks or, if necessary, in suitable containers!
- Never empty waste water in open spaces or down man-holes! Generally, the public waste water system does not run through clarification plants.
- Empty your waste water tank as often as possible, even if it is not completely full (hygiene). If possible, rinse out the waste water tank with fresh water after emptying.



Only empty your waste water tank in special places for waste water disposal, but never in open spaces! Generally, waste water stations are found in motorway service areas, campsites or petrol stations.



#### The following applies for wastes

- Only use approved sanitary cleansing products in the waste tank.



You may be able to avoid the use of sanitary liquids by installing an activated carbon filter system (sold as an accessory)!

Use sanitary liquids very sparingly. An overdose is no guarantee of preventing odours!

## Sanitation

- Never allow the waste tank to become too full. Empty the tank immediately as soon as the level indicator lights up.
- Never empty wastes down manholes! Generally, the public waste water system does not run through clarification plants.



Empty the waste tank in special places for sanitary disposal, but never in open spaces!



### The following applies for waste

- Separate your waste and put appropriate materials in the recycling bins.
- Empty waste bins as often as possible in the appropriate bins or containers. This prevents unpleasant odours and the problem of collecting rubbish on board.

### The following applies for picnic spots

- Always leave picnic spots clean and tidy, even if you dispose of someone else's waste.
- Do not let the vehicle's engine run unnecessarily while the vehicle is standing still. When the transmission is in neutral, a cold engine generates more harmful emissions. The quickest way for the engine to reach its operating temperature is while driving.



Careful use of the environment is not only in the interest of nature, but also of motor home and van drivers everywhere!

## 13.2 Returning the vehicle

If you should ever have to give up your van and have it recycled, the manufacturer of the basic vehicle is responsible for taking it back (status at the time of printing).

This means that your HOBBY van must be taken back free of charge by any Fiat dealer and expertly recycled.

# Chapter 14: Technical Data

## 14.1 Chassis Data

Hobby Modell	Model	Type	Base vehicle	Motorisation <sup>3)</sup> Model	exhaust gas emissions	Chassis	Belt system Aguti	Seats
FIAT Ducato X290								
K60 FT	Vantana ONTOUR	K1	Ducato Light	115 PS (85 kW)	Euro 6	Hochdach L4H2	G2000 ASBC (Art. 118733)	4
K65 ET	Vantana ONTOUR	K1	Ducato Light	115 PS (85 kW)	Euro 6	Hochdach L4H2	G2000 ASBC (Art. 118733)	4
K60 FT	Vantana De Luxe / Premium	K1	Ducato Light	115 PS (85 kW)	Euro 6	Hochdach L5H2	G2000 ASBC (Art. 118733)	4
K65 ET	Vantana De Luxe / Premium	K1	Ducato Light	115 PS (85 kW)	Euro 6	Hochdach L5H2	G2000 ASBC (Art. 118733)	4

All measurements in [mm]                      all weights in [kg]

1) without wing mirror  
2) tow coupling is a special accessory  
3) FIAT: 2.3 Multijet 115 CV: 85 kW (115 PS); 2.3 Multijet 130 CV: 96 kW (130 PS); 2.3 Multijet 150 CV: 110 kW (150 PS); 2.3 Multijet 180 CV: 130 kW (177 PS)  
4) The trailer load increases at a motorisation for 2.3 Multijet 130 CV, 2.3 Multijet 150 CV and 2.3 Multijet 180 CV to 2,500 kg.

t.p.o.w. [kg]	Permiss. front axle load	Permiss. rear axle load	Unbraked trailer load <sup>2)</sup>	Braked trailer load <sup>2)</sup>	Max. permissible drawbar load <sup>2)</sup>	Maximum towing weight	Total length	Height	Width <sup>1)</sup>	Front tread width	Rear tread width	Wheel base	Front projec- tion	Rear projec- tion
3300	1750	1900	750	2000 <sup>4)</sup>	100	5300	5998	2642	2050	1810	1790	4035	948	1015
3500	1850	2000	750	2000 <sup>4)</sup>	100	5500	6363	2642	2050	1810	1790	4035	948	1380
3500	1850	2000	750	2500	100	5500	5998	2669	2050	1810	1790	4035	948	1015
3500	1850	2000	750	2500	100	5500	6363	2669	2050	1810	1790	4035	948	1380

14.2 Load increased

Hobby Model	Model	Type	Base vehicle	Seats	t.p.o.w. [kg]	Permissible front axle load	Permiss. rear axle load	Unbraked trailer load <sup>1)</sup>	Braked trailer load <sup>1)</sup>	Max. permissible drawbar load <sup>1)</sup>	Maximum towing weight	Height
Load increase for Vantana to 3500 kg												
K60 FT	Vantana ONTOUR	K1	Ducato Light	4	3500	1850	2000	750	2000 <sup>2)</sup>	100	5500	2642

All measurements in [mm]                      all weights in [kg]

- 1) tow coupling is a special accessory  
2) The trailer load increases at a motorisation of 96 kW (130 PS), 110 kW (150 PS) and 130 kW (177 PS) to 2,500 kg



Load increased for van to 3,500 kg using a modified chassis, 1st stage (only available ex works).

### 14.3 Vehicle and equipment weights

Model	Series	Weight of basic vehicle	Driver	Diesel [kg]	Unladen weight [kg]	Basic equipment	Mass when vehicle is ready to start	t.p.o.w. [kg]	Overload weight
<b>FIAT Ducato X290</b>									
<b>K60 FT</b>	Vantana Ontour	2449	75	69	2593	121	2714	3300	586
<b>K65 ET</b>	Vantana Ontour	2554	75	69	2698	121	2819	3500	681
<b>K60 FT</b>	Vantana De Luxe	2558	75	69	2702	121	2823	3500	677
<b>K65 ET</b>	Vantana De Luxe	2664	75	69	2808	121	2929	3500	571
<b>K60 FT</b>	Vantana Premium	2588	75	69	2732	121	2853	3500	647
<b>K65 ET</b>	Vantana Premium	2692	75	69	2836	121	2957	3500	543



14.4 Tyres and rims

Light chassis					Series			Optional extra <sup>1)</sup>		
Hobby Model	Series	t.p.o.w. [kg]	Perm. axle load front	Perm. axle load rear	Tyre size	Metal wheel rim	alloy wheel rim	Tyre size	Metal wheel rim, optionally alloy wheel rim	Wheel attachment*
FIAT Ducato X290										
K60 FT	Vantana ONTOUR	3300 / 3500	1750 / 1850	1900 / 2000	215/70 R 15 CP	6 J x 15, ET 68	---	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
K65 ET	Vantana ONTOUR	3500	1850	2000	215/70 R 15 CP	6 J x 15, ET 68	---	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
K60 FT	Vantana De Luxe / Premium	3500	1850	2000	225/75 R 16 CP	---	6 J x 16, ET 68	---	---	---
K65 ET	Vantana De Luxe / Premium	3500	1850	2000	225/75 R 16 CP	---	6 J x 16, ET 68	---	---	---

<sup>1)</sup> 16" wheels not in connection with motorisation of 85 kW (115 PS).



<sup>1)</sup> 16" wheels not in connection with technically permissible maximum weight of 3,000 kg.

★ No. of tyre bolts / centralising collars / bolt circle

## 14.5 Tyre pressure values

Van		
Tyres	Tyre pressure (bar)	Basis
Camping tyres (CP)		
215/70 R 15 CP	front: 5,0    rear: 5,5	FIAT
225/75 R 16 CP	front: 5,5    rear: 5,5	FIAT
Standard and winter tyres (C)		
215/70 R 15 C	front: 4,0    rear: 4,5	FIAT
225/75 R 16 C	front: 5,2    rear: 5,2	FIAT

## 14.6 Refrigerator SlimLine RMVOC90

Voltage:	12 V---
Rated current:	3,5 A (12 V---
Cooling capacity:	0 °C to +12 °C
Gross capacity:	90 l
Net capacity:	88 l
Maximum load:	35 kg
Energy consumption (with +5 °C interior temperature and +25 °C ambient temperature):	30 Ah/24 h
Climatic class:	ST
Ambient temperature:	+16 °C to +38 °C
Relative humidity:	max. 90 %
Constant inclination:	max. 30°
Noise emission:	42 dB(A)
Dimensions (Wx Hx D):	1430 x 426 x 381 mm
Refrigerator weight:	20 kg
Compressor weight:	6 kg
Quantity of coolant:	80 g
CO2 equivalent:	0,058 t
GWP:	1430
Test/certificates:	 

The refrigerant circuit contains R134a.  
Contains fluorinated greenhouse gases  
Hermetically sealed equipment

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