MANUAL 2022 GB

Version 01/2022

VANTANA ONTOUR EDITION | VANTANA DE LUXE

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. Maintenance must be carried out regularly and maintenance intervals observed - this is a prerequisite for ensuring warranty. Maintenance must be carried out by an authorised HOBBY dealer and documented by him in the HOBBY Customer Service History booklet. In addition, all inspections are reported to HOBBY by the dealers.

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 ① .

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.

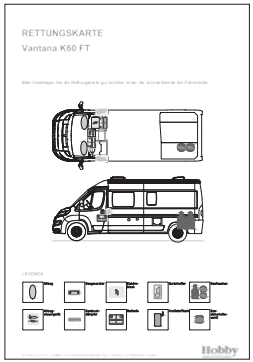
Each person travelling in the van must sit on a seat that is equipped with a seatbelt and wear the seatbelt whenever the vehicle is moving. The number of people travelling in the van may not exceed the number of seats equipped with a seatbelt.
Please ensure that the technically permissible maximum weight 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.
- The individual manufacturer's operating and instruction manual(s) must be observed when using the basic vehicle as well as built-in devices (refrigerator, heating system, hob, etc.).
- 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 14.3 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

A safety sheet for each vehicle should be stored behind the sun visor. If required, your dealer will give you the safety sheet. 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.

Smoke detector

Smoke detector

The van has been fitted with a battery-operated smoke detector on the ceiling. Should smoke be detected inside the vehicle, a loud alarm will go off, warning any passengers of a possible fire. The detector's own electricity supply, powered by the built-in 9V block battery, ensures that the smoke detector will function independent of the vehicle's electric system, even if the power supply has been switched off.

- To activate the smoke detector, pull the protective foil off the block battery and insert the battery.
- Use the test button to test the smoke detector.

Please refer also to the device manufacturer's operating manual.

For more information on using and changing the battery, please refer to Chapter **12 Maintenance and Upkeep.**

A smoke detector will not prevent fires or put them out. If it is working properly, it will merely provide you with those possibly decisive seconds to save yourself and notify emergency services.

2.4 Equipment

2.4.1 Emergency equipment

To ensure that you are prepared for an emergency, always carry the following three rescue devices with you and make sure you are familiar with how to use them.

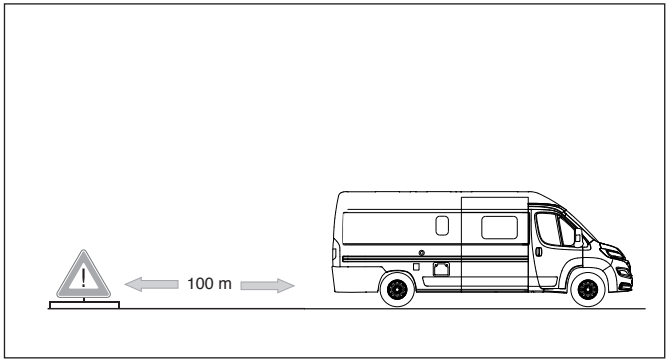
First-aid kit

The first-aid kit should always be at hand and have a fixed position in your van. If things have been removed from the first aid kit or used they must be replaced as soon as possible. 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!

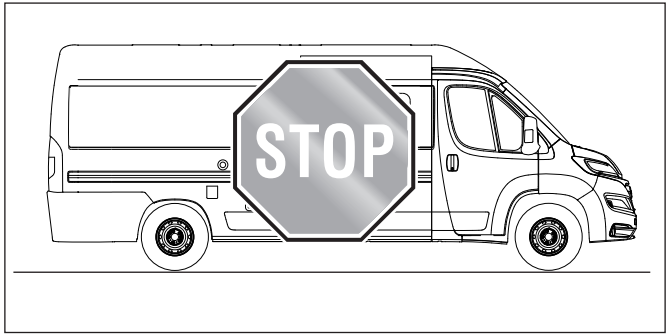
- **Use a torque wrench to check the wheel nuts after driving the first 50 miles with your van.**
- **Switch off the gas-operated built-in appliances before refuelling the vehicle.**

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 or remove and store them **(model-specific)**. Should there be a thermal curtain*, remove and store it.
- The roof of the vehicle 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 14.4).**
- Check liquids such as oil, coolant, brake fluid and windscreen 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

Preparing the interior

- Close all of the windows in the vehicle as well as the roof bonnets and roof windows and lock them securely.
- 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”**).
- 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).
- Close doors (including refrigerator door), drawers and lockers firmly (if necessary, lock the central lock on the kitchen drawers).
- Secure the table and, if possible, lower it.
- If necessary, secure the articulated TV bracket* and if possible, remove the TV* and store it in a safe place.
- Turn off interior lights.
- Fully open the black out screens in the drivers cab or remove and store it.
- Should there be a thermal curtain*, 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). Ensure that forced ventilation is not covered by snow or leaves as this increases the **danger of suffocation.**

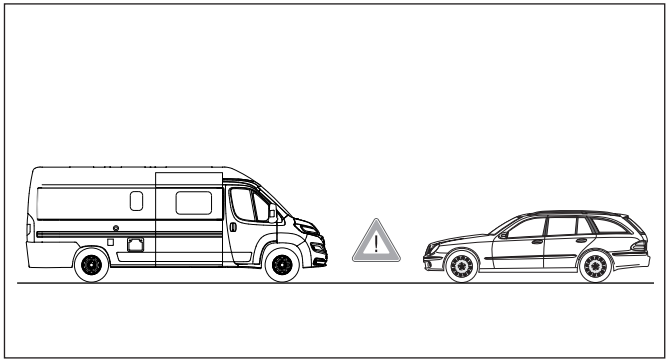
Place a note with all important measures and weights in a visible place in both the van and the driver's cab.

Exterior

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

Preparing the vehicle

- Retract the entrance step.
- If necessary, switch off the awning light.
- If necessary, pack away the awning and stow the winding handle securely in the van.
- If necessary, retract the satellite dish*.
- Close and lock the sliding door, rear flaps and locker doors.
- Close the tap for the waste water tank.
- Secure gas cylinders.
- If connected remove the 230 V electric cable from the exterior socket.
- If necessary, secure any bicycles on the bicycle carrier*, 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 **(see Chapter 5.4)**.



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 take road and traffic conditions into account.
- As a general rule, never drive faster downhill than uphill.
- 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.
- The van may be caught in air suction when overtaking or being overtaken by lorries 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 van has a long rear overhang.
- Please note that, depending on the model, the rear end of the van can swing out.

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 vehicle 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, etc.)!
- Turn off all mobile phones!
- Fill only diesel fuel or AdBlue in the appropriate tank opening, as set out in the manufacturer's operating manual.
- 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.
- Compensate for inclinations by placing suitable boards or wheel levellers under 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‘ seat, ensure that you do not accidently disengage the handbrake.

Should the temperature be around 0° C or less, only pull lightly on the hand brake and always shift into a 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.

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 Fiat

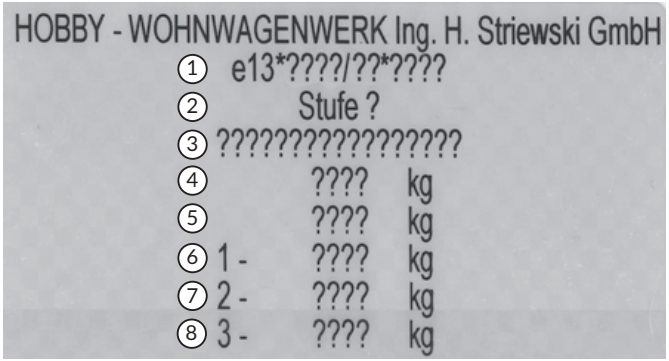
VIN of the base vehicle Citroën

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 windsreen 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.

Name plate



Hobby name plate

1. Approval number
2. Manufacturer's version
3. Vehicle identification number (FiN)
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, 3nd axle

Do not remove or change the name plate.

There is an additional adhesive label next to the Hobby name plate. You'll find the address of the Hobby factory on it. **Do not remove this adhesive label!** Without this label, the operating licence for the vehicle will immediately expire.

Two name plates are always mounted on the vehicle: one for the first stage of approval (on the basic vehicle) and one for the second stage (Hobby). The data on the name plate for the second stage of approval is relevant for registering the van.

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.
- Secure all bed frames, mattresses and crossbeams if they 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, Citroën). 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 %), AdBlue, 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:

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

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 x (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 cycle 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.

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.

Please also observe the information given in **Chapter 11 Accessories**.

3.6 Automatic transmission* (Fiat)

As an option, your van may be fitted with a fully automatic 9-speed automatic transmission that operates both **automatically** and with **manually**.

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.

The gearshift lever on the dashboard has the following positions:
- D: for selecting the forward gear,
- N for selecting the neutral position (engine is idle),
- R for selecting the reverse gear,
- P: for parking the vehicle.

Automatic
When driving, the control module selects the appropriate gears for the different driving conditions, depending on the speed, load and gradient.

Manual mode
Should it be necessary to change gears frequently, and under especially difficult conditions (e.g. steep gradients), the manual mode enables you to use a lower gear, providing better performance both up and down hills. No overheating.

- This driving mode is activated by pushing the lever to the left and then forwards and backwards, allowing you to change gears.

Kick Down
If the accelerator pedal is suddenly fully depressed, e.g. when overtaking, the transmission shifts to a lower gear to achieve better acceleration.

Drive Mode

Three different operational modes can be set:

- Normal
- Power (if carrying a full load or driving down a steep descent)
- Eco (driving on the motorway at cruising speed)

- The on-board electronic system ensures that the drive mode set will achieve the best performance.
- The activated mode is shown on the dashboard.
- After the vehicle has been started, the system is always set to the normal function.

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	Wheel bolts	Tightening torque
16"	M16 x 1,5 x 32	180 Nm

Check the tightening torques 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.

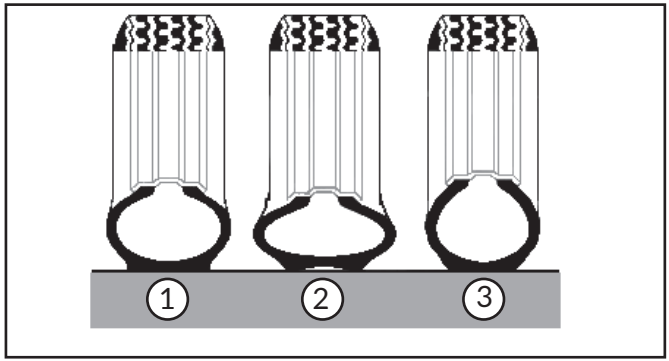
Snow chains may only be mounted on the front drive wheels; it is strictly forbidden to mount snow chains on the rear wheels.

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 **„Tyre pressure values"** in the **chapter 14** on **"Technical Data"** or the operating instructions for the basic vehicle.

4.4 Tyre tread depth and age of tyres

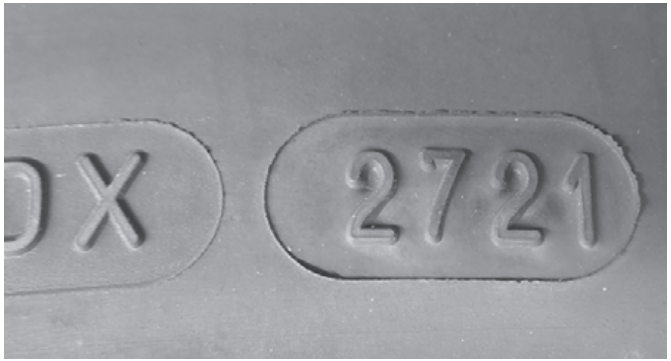
The law states that tyres must be replaced when the tread depth gets to 1.6 mm.

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 selomly 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 be no more than 6 years old. The material becomes brittle with age or when the vehicle has not been driven 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 2721 means week 27 in the year of manufacture (here: 2021).

4.5 Wheel rims

Only use the rims noted in the registration documents.

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. Vehicles with automatic transmission*: set the gearshift lever to “P”.
- 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 spanner one full circle to loosen the wheel bolts, but do not turn it any further.
- 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°C to + 50°C.

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.

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

Do not leave the compressor continuously switched on for more than 20 minutes. There may be a risk of overheating.

Using the fast tyre repair kit will only help to make the tyre temporarily usable. The tyre should, however, by checked and repaired as quickly as possible by an experienced technician.

Chapter 5: Exterior Structure

5.1 Ventilation

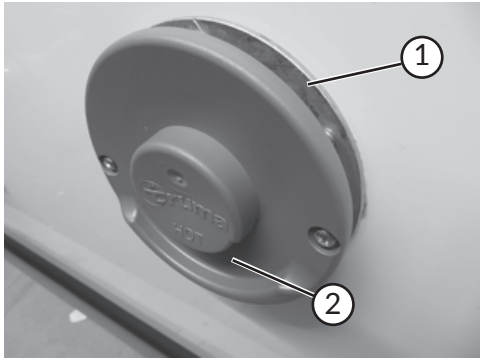
The following applies for ventilation:
Ventilation is important if you want to feel comfortable in your van. Draft-free ventilation is integrated in your van via the traction unit; de-aerating via the roof bonnets. Do not interfere with their mode of operation!

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 **"12.8 Operating in Winter"**).

If the temperature outside is very high, we recommend that you park the vehicle in the shade to ensure that the refrigerator continues to work properly.



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 delivered 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.

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.

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.

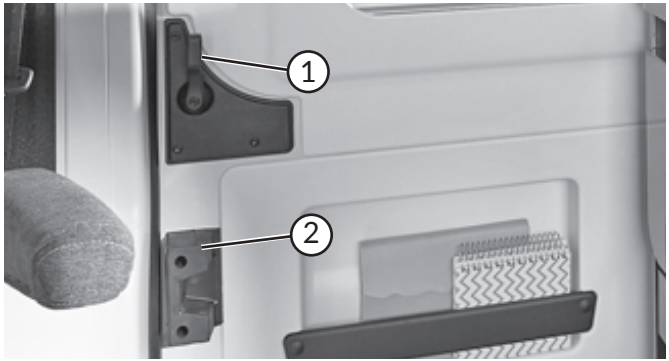
The window in the sliding door must always be closed before opening or closing the door.

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. Never barricade the door from the inside or 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.

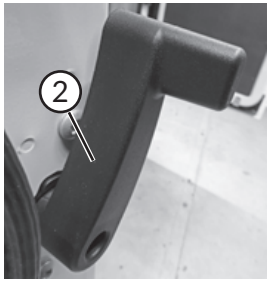
Rear door from the outside

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

Door release button

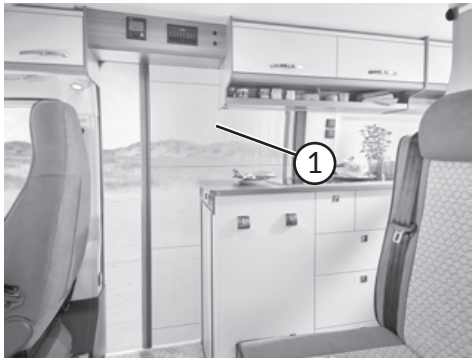
Rear door from the inside (left rear door)

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 release buttons ③ on the inside of the doors must be pressed and held so that each door can be opened by a further 90°. These release buttons must also be pressed if the door is to be closed.

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



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.

The insect screen may only be pulled down when the door is open so as not to prevent an escape route in an emergency and avoid any damage to either the entrance door as well as the insect screen. Only shut the screen door after the insect screen has been pushed back into its original position.

① Insect screen on screen door

Toilet cassette door

Toilet door

Opening

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

Locking

- Push the toilet flap up 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

Mains hook up

Opening

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

Closing

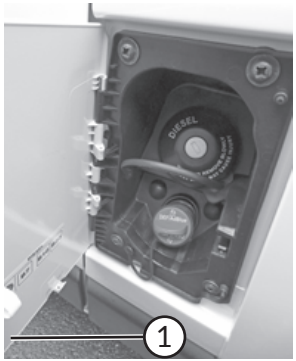
- Grasp the latch of the cover flap and close it until it clicks into place.

Please refer to the appropriate chapters on water **(chapter 8)** 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 Fiat



Fuel cap Citroën

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. The AdBlue tank can be found directly beneath this.

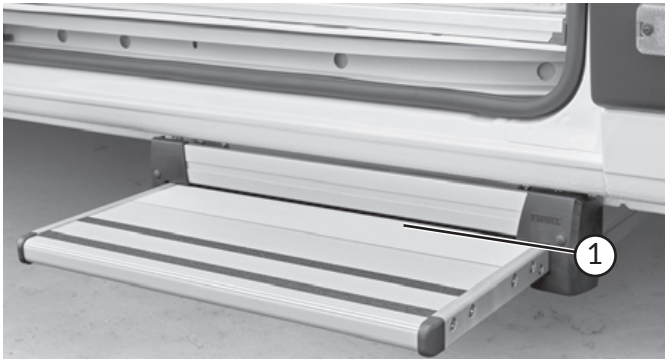
Opening

- 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 operating instructions from Fiat or Citroën for information on how to operate the petrol cap and the AdBlue tank.



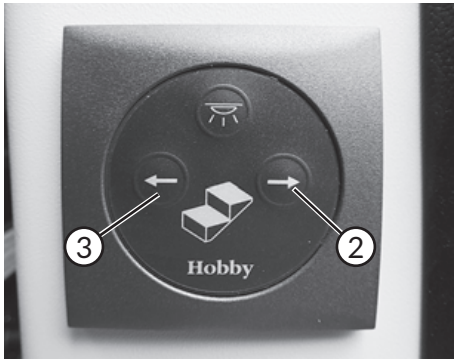
Extended entrance step

5.3 Entrance step

The vans are equipped with an electrically extendible entrance step ①.

> 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!**

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.

Bicycle carrier, loaded

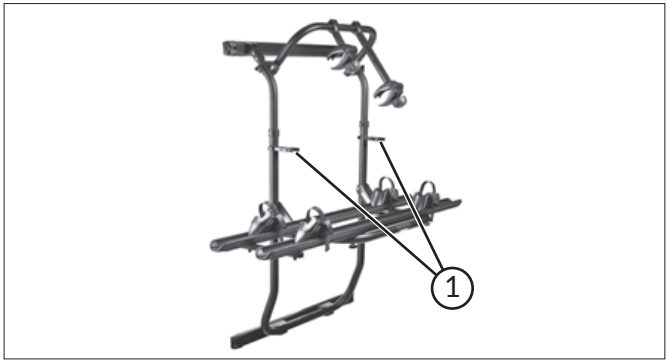
5.4 Bicycle carrier *

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

Before driving for the first time, take some time to practise so as to familiarise yourself with driving conditions.

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.



Bicycle carrier

- Ensure that the existing lighting equipment is not completely or partially obscured by any loads.

> 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

Your van has been 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.

Supporting arm

Extending

- Insert the hook on the winding handle into the grommet ① **(page 41)** 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.
- Insert the winding handle ② **(page 41)**.
- Only then should you roll out the awning to the desired position.
- Remove the handle.
- Fold out and secure the legs which are also located on the inner side of front awning profile.

Retracting

- Release the support legs and fold them in.
- 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.
- Remove the winding handle ② **(page 41)**.
- 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.

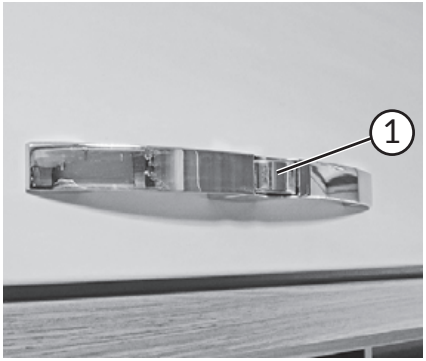
Chapter 6: Interior Structure

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

Opening

- Press the pushbutton (1) to unlock the flap/drawer.
- Pull on the handle and, at the same time, swing the flap/drawer until it 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.

Push button lock on the kitchen drawers

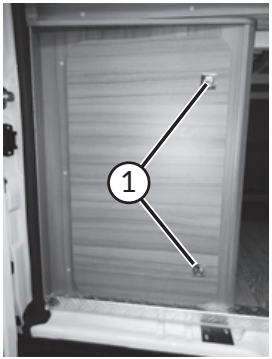
Pushlock fitted to kitchen doors/drawers

To open

- Press the pushlock ① (latching button) so that the button pops 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.

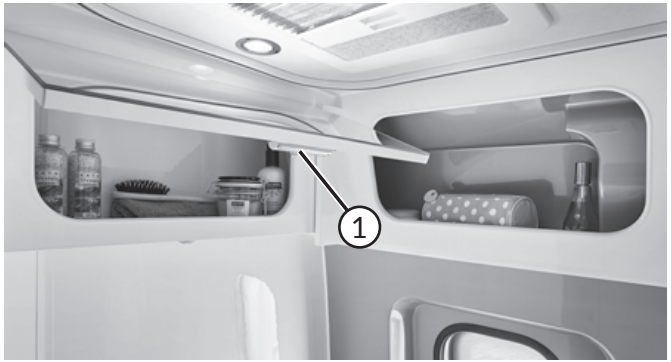


Door of the gas-bottle container

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

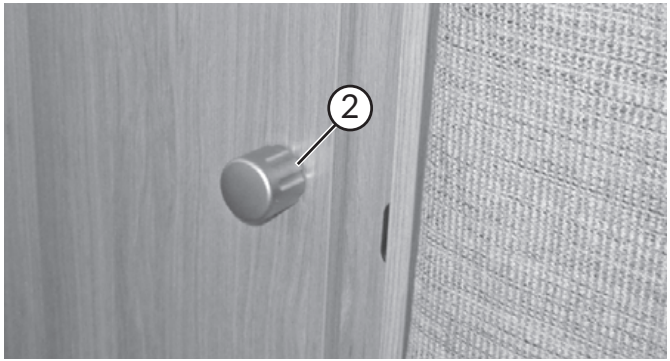
Mirror cabinets

Opening

- Open the door of the mirror cabinet by pressing the lower edge of the lock ① 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 ② to the left until the mechanism opens. Then use the knob ② to carefully pull the door open.

Closing

- Use the knob ② to carefully pull the door shut until you feel the resistance.

Coat hooks in the vehicle

Coat hooks

Different types of coat hooks have been mounted in the van.

Please ensure that the hooks are not weighed down while driving.

Articulated TV bracket

6.2 Articulated TV bracket for flat screen TV*

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.

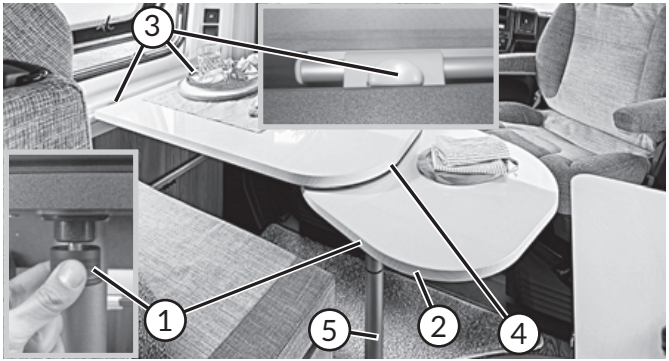
When driving, the extendable arm must always be locked in its original position.

Please measure the installation dimensions of your van before you buy or install a television. The measurements depend on the model and optional extras. The maximum dimensions of the television are 535 x 351 x 50 mm. The designated mounting position for the extendable arm provides space for a diagonal screen of up to 22”.

The mounted TV must not weigh more than 8 kg.

When driving, we recommend that you remove the TV from the extendable arm and store it securely.

For information on LED flat screen TVs please refer to **Chapter 10.5.**



Hanging table with extendable table top

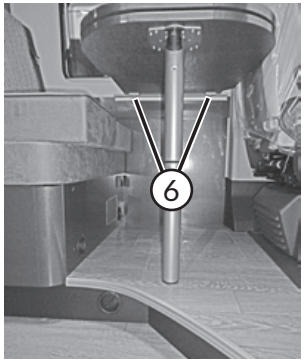
6.3 Tables

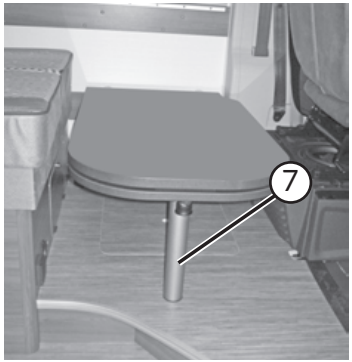
Hanging table

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.

☞ We recommend that you dismantle the table and stow it safely in the vehicle while on the road.

6.4 Seating arrangements and sleeping areas

Never leave small children unattended in the van when you are gone.

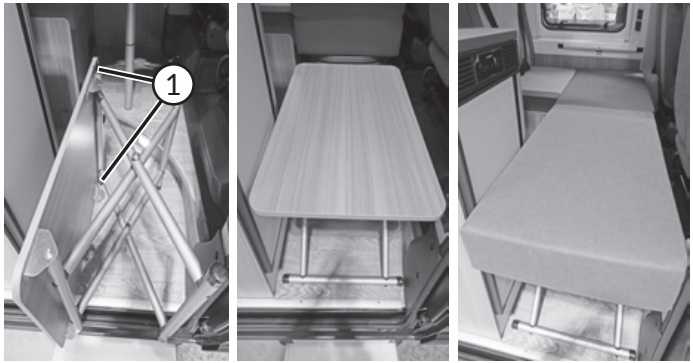
Beds have been designed and tested to hold up to 100 kilos per person.

Converted seating arrangement

Converting the seating arrangement*

To convert into a bed

- Hang the table in the lower guiding rail **(see 6.3 Hanging table).**
- The optional extra includes an additional foldaway frame. Set this frame up as you would a folding chair and tighten both turn screws ① so that the frame is stable.



Assembly and placement of the foldaway frame

- Position the foldaway frame as shown in the illustration above.
- Then place the additional cushions provided on both the hanging table and the foldaway frame.

Position the foldaway frame carefully to avoid damaging the refrigerator and the B-pillar. **Please note: there is a risk of crushing your fingers!**

When converting the seating arrangement into a bed, do not place the cushions directly on the surface of the table. There is a danger that it could be scratched or mould could build up from condensation. We recommend that you use an absorbent cloth (e.g. terry cloth or cotton).

Ensure that the tabletop, seat chests as well as cushions are well secured so that nothing can fall.

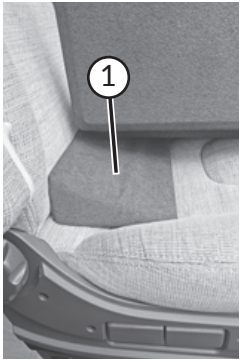
Cab bed

Converting the cab bed*

This optional extra includes cushions fitted to the space in the cab as well as two wedges to fill the empty spaces and a safety belt that ensures that the cushions are perfectly aligned and stable.

To convert into a bed

- Turn the driver's and passenger's seats in the direction of traffic and lock the seats into place.
- Then fold up the arm rests.
- Place the enclosed wedges ① on the driver's and passenger's seats as illustrated.
- Position the cushion as illustrated.



Wedges

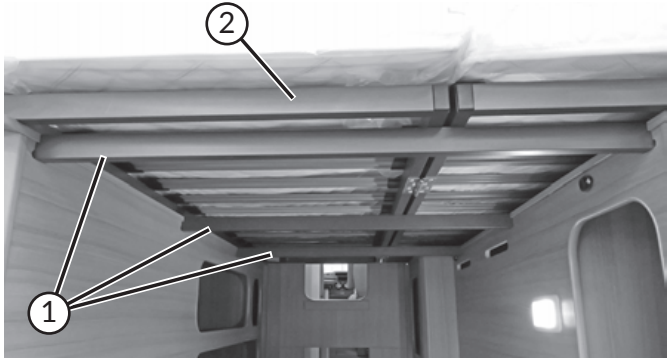
Cushion in the correct position

- Guide the safety belt provided ② through the eyelet ③ underneath the bed and the belt to the handle ④.

⚠ Never convert or use the cab bed while the motor is running!

Single beds at rear end

Individual beds in the rear



Positioning the crossbeams and slatted frame

To convert beds

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

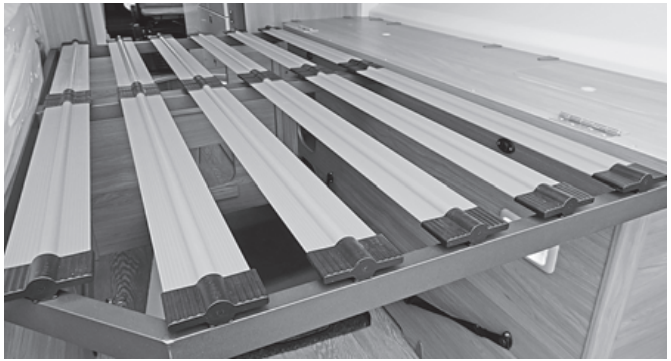
Mattresses

- Finally, place the three mattresses on the slatted frame, again paying attention to the slant in the corners.

> 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



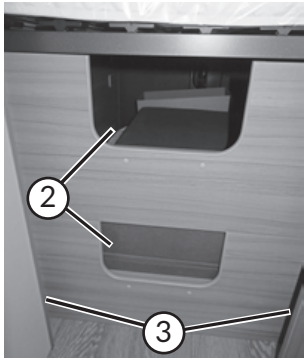
Positioning the slatted frames

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.

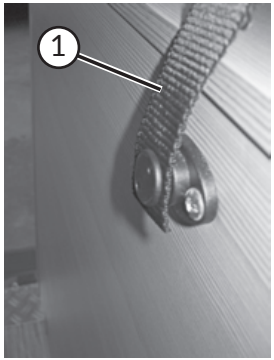
Ensuring safe transport while driving

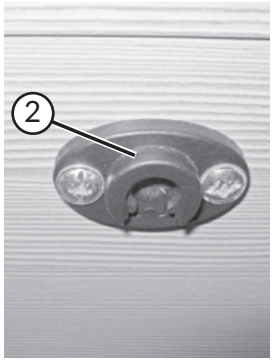
Converting beds into storage space (for individual and transversal beds)

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) en) 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.

Fastening strap for shower curtain

Extendible shower head

6.5 Washroom

Shower curtain

- Detach the two fastening straps to the right and left of the shower panel to enable you to carefully close the two-part shower curtain.
- To fasten, push the dry shower curtain back and stow it to the right and left behind the shower panel. Then secure the curtain with the fastening straps.

While driving, the shower curtain must be secured in its original position. Only secure the curtain behind the panel after it has dried completely. This helps to prevent mould.

Shower head

The shower head on the wash basin can be pulled out easily (see illustration). After use, return the shower head to its original position on the water tap.

Window catch

6.6 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.

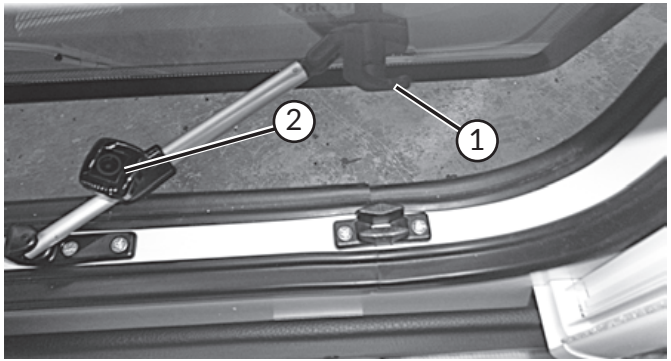
Windows must be shut while driving. Never use de-icing spray or an ice scraper for the windows in the superstructure, as otherwise the plastic would be damaged.

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

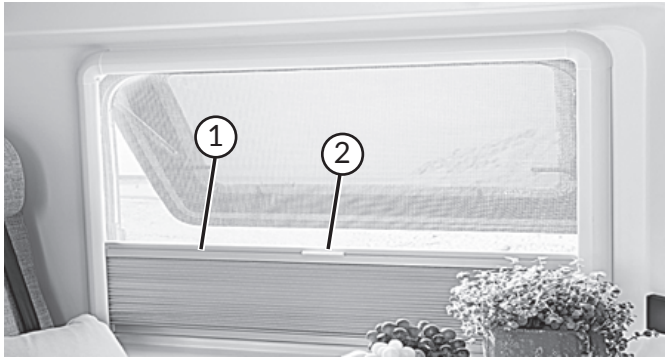
Fully adjustable window stays

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

Opening

- Use the rail/latch to push the pleated screen up or down 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.

HOBBY TOP

Roof window

The “HOBBY TOP” panorama roof window is standard equipment in the Vantana De Luxe model **(available as an optional extra for the Vantana ONTOUR Edition series)**. It has integrated pleated screens that can be drawn to close them as required.

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

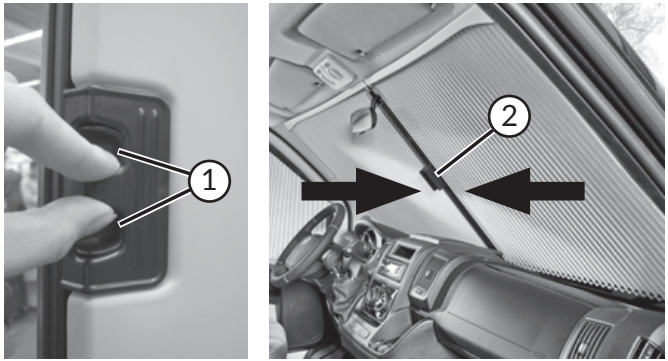
To open

- Turn all of the window latches by 90°.
- Press the window latch outwards until you hear it click. The window will automatically remain in this position. The angle of opening can be increased in predefined steps.

To close

- Lift the window slightly to unhook the hinge.
- Shut the window.
- Turn all latches back to their original position so that they clasp behind the brackets and pull the pane into the seal.

The roof window must be shut while driving.



Blind system for De Luxe front windscreen

6.7 Blind system for driver's cabin

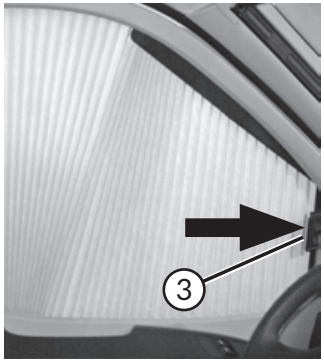
The blinds must only be closed when the vehicle is standing and the engine has been turned off. Before driving, fold the entire system together and lock it.

When the van is not in use, open the blackout system; otherwise, exposure to the heat and UV radiation will damage it permanently.

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

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.



Blind system for the side window

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

6.8 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. In this case, there is no need to fasten the sides of the curtain.

Footwell insulation

Place the trough-shaped footwell insulation in the footwell of the driver’s cab.

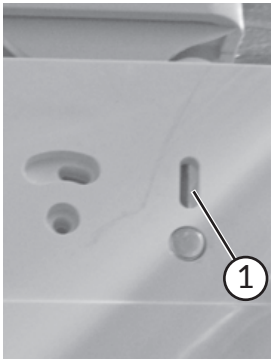
The footwell insulation must be completely removed from the driver’s cab before driving.

6.9 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.
- Leave the blinds completely open if you do not plan on using the vehicle for a longer period of time.
- The vents for ventilation must always remain open! Never close or cover up these vents!

Large roof light



Control pin

Large roof bonnet

Before opening the roof light, ensure that the area above the opening of the roof light is free. The top can be opened to an angle of 60°.

To open

- Fold the winding handle out from its parked position and in to the user position by pulling it out. Turn the handle clockwise to open the top to the desired position. When you have reached the maximum opening angle you will feel the resistance.

To close

- Turn the handle anti-clockwise until the light is closed and you feel the resistance. The control pin ① **(p. 61)** is visible when the skylight is shut. Then turn the handle only so far until you can fold it into its parked position. To be locked securely, the handle must be folded into the parked position.

Small roof light

Locking knob

Small roof bonnet

To open

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

To close

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

> The maximum speed is 130 km/h, going faster will create wind noise and may cause damage, depending on the superstructure or place of installation.
>
> **Always keep skylights shut when driving!**

Fly screens and blinds (plissés)

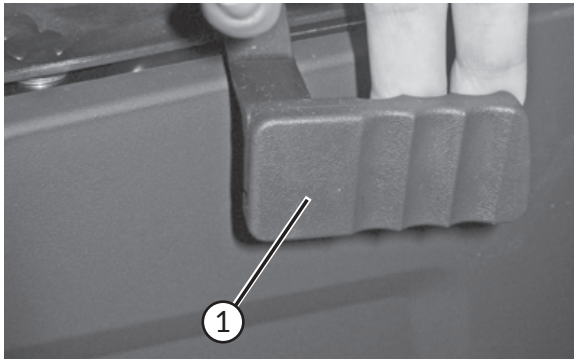
Both blinds are fully adjustable by sliding them horizontally from side to side.

Seats

6.10 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

6.11 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

6.12 Seatbelts in the van

The seating arrangements are fitted with safety belts.

Buckling the seatbelt

Do not twist the seatbelt.

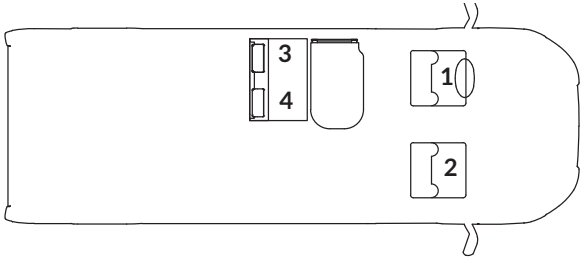
- Grasp the tongue and insert it in the lock of the seatbelt until you hear it snap shut.
- Guide the upper part of the seatbelt over your shoulder and diagonally across your chest.
- The lower part of the seatbelt fits across your hips.

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.

6.13 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.

Please note:

- 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.
- Battery acid 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 turn 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_1 U_0 charging technology, provided the sensor has not been calibrated or the CIBUS system is offline.
- In the case of misuse the guarantee and manufacturer's liability will no longer apply.
- The air vents in the 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.

230 V 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 230 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 Control panel

The system consists of control electronics, a control panel with a keypad and several peripheral panels. It enables you to operate the different lamps and functions. Active functions are shown by means of blue LEDs beneath the respective icons.

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 control, heating and entrance step) 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 12V system (this also affects the toilet flush, water pump, radio and heating cartridge for the Ice Ex/DuoControl*). The current operating settings will not be saved.

All 12V electrical devices will only operate on the ancillary battery if the main switch has been activated (exceptions: the heating system, DuoControl remote control*, gas alarm*, electric entrance step*, electric tank heating system*, Hobby-Connect/+ 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).

Wall lights / lighting in the seating

- 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.

> Use the touch function or the main switch to turn the spotlights in the driver's cab on and off.
>
> The wall lamps themselves must be switched on before they can be controlled via the control panel.

Awning light*

- 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

- Press briefly on the button to switch the kitchen light as well as the spots on and off.

LED ambient lighting

- Briefly press the button to switch on the indirect light. Press longer on the button to regulate how brightly you want the lights to shine (only in the sleeping area).

> Depending on how the vehicle has been equipped, either 1, 2, or 3 keys have been assigned **(not in the ONTOUR Edition series)**.

Fresh water tank

Waste water tank

Filling level indicator

- When you press these keys, the filling level of the fresh water and waste water tank, respectively, is displayed by means of an illuminated LED bar. When the filling level of the fresh water tank is very low, the outer left LED on the bar will start to blink.

Align the van horizontally to obtain a meaningful result from the filling level indicator.

Habitation battery

Starter battery

Battery management

- When you press this key, the current status of the battery is displayed by means of an illuminated LED bar. When the charging status of the battery is very low, the outer left LED on the bar will start to blink.

Overview of charging status of habitation/starter battery and filling levels of fresh and waste water tanks:

Battery voltage starter battery	< 11,5V	11,5V to 11,7V	11,8V	11,9V to 12,0V	12,1V	12,2V
SoC Charging status ancillary battery/ies	0%	10%	20%	30%	40%	50%
LEDs	First one blinks	1	2	3	4	5
Filling level waste water/fresh water tank	0%	25%	25%	25%	50%	50%

Battery voltage starter battery	12,3V	12,4V	12,5V	12,6V	>= 12,7V
SoC Charging status ancillary battery/ies	60%	70%	80%	90%	100%
LEDs	6	7	8	9	10
Filling level waste water/fresh water tank	75%	75%	100%	100%	100%

Radio/SAT-nav device

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

Bluetooth connection

- Press this key to activate the Bluetooth pairing mode. Press the key for approx. 2 seconds. A blue chase light will appear on the control panel. It goes off automatically after 2 minutes or when the Bluetooth connection has been established.

Electric waste water tank heating system*

- This key switches the electric waste water tank heating system on and off.

Water pump

- Press this key to switch the water pump on and off.

Floor heating

- In the 2022 model series, this key is not assigned.

7.3.1 HobbyConnect / HobbyConnect+*

HobbyConnect/HobbyConnect+ enables most CI-BUS-enabled components in the recreational vehicle to be operated via mobile devices (smartphone/tablet). The **"HobbyConnect" app** is required for this. It is free of charge.For **HobbyConnect**, the connection to the vehicle is made via Bluetooth; for **HobbyConnect+**, however, a Connect+ Box with an integrated SIM card (mobile network) must be installed in order to make a connection.

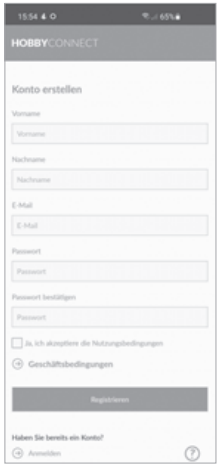
- The HobbyConnect is only available for iOS or Android operating systems.
- The HobbyConnect is constantly being further developed and updated. Therefore, new In-App functions are on offer from time to time.

App-Icon

Using the HobbyConnect app

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

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



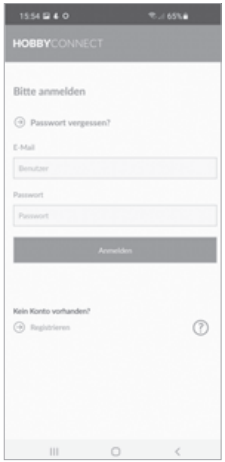
Register

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

Register
You will be asked to register the first time you start the app. If registration has not yet been carried out, the registration interface will appear on the display.

Enter your e-mail address, your first and last name and set up a password. Activate the check box to confirm the General Terms and Conditions. Then click on "Register". In the next step you will receive an e-mail, sent to the e-mail address you have entered. The mail includes a confirmation link. Click on the confirmation link to complete the registration process. In future, always enter this e-mail address and the selected password in the "Login" form.

When you have started the app, click on the Login button under "Do you already have an account?" to enter your login data (e-mail address and password)



Login

Enter your e-mail address and password and then use the Login button to confirm the data you have entered.

Use the "Forgot password?" function to switch to a submenu and have a new password sent to the e-mail address entered.

Selecting a connection

If the login data was entered correctly, the "Connect now!" Window will open. Select Bluetooth ① to connect via HobbyConnect or HobbyConnect+ (GSM) ②.

Connecting via HobbyConnect (Bluetooth)

To set up a connection between your mobile device and the control panel in the caravan, 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.

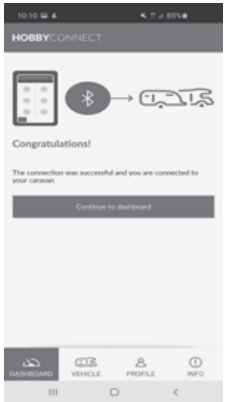
1. Activate the Bluetooth function on the vehicle's control panel. Press the Bluetooth key ① (press it for approx. 2 seconds).
2. Activate the Bluetooth function on your mobile device. If necessary, use the manu-facturer's operating instructions.

> Only one mobile device at a time can be connected to the app. If the app is to be used on another mobile device, it must first be disconnected from the device that is currently using it.

Connection is being activated

When the Bluetooth functions have successfully been activated, use the "Bluetooth" button on the app's Start menu to connect the components.

> This procedure can take up to 30 seconds.



Successful Bluetooth connection

The picture on the left shows a successful Bluetooth (HobbyConnect)-connection.

> If a Bluetooth connection could not be established, check the Bluetooth settings on your mobile device once again.

Connecting via HobbyConnect+
(Connect+ Box/mobile communication)

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

The connection between the caravan and the app can only be established if the Connect+ Box has been activated on the server and assigned to the corresponding vehicle. To activate the Connect+ Box, the access code (HobbyConnect+ code) must be entered in the **HobbyConnect 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 HobbyConnect-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+-Systems 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 will be deactivated after the renewal period has expired.
- A new SIM card can be obtained together with a new HobbyConnect+-box through your 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 (HobbyConnect).
- 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 83**.
- The HobbyConnect+-system collects, processes and uses data in accordance with the consent given under “Data Protection”. To stop such data, especially in connection with the location of the caravan, from being stored further, simply remove the SIM card from the control unit.

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 (HobbyConnect+-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 (HobbyConnect).

Connect+-Box

Note that if the HobbyConnect+ box has been installed it must be supplied with sufficient voltage.

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 HobbyConnect+- code for connecting the app to the vehicle can be found in the enclosed documents.

In **vans**, the serial number can be found on the key card.

Do not confuse the serial number with the HobbyConnect+ code!

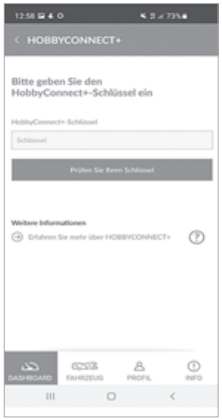
If no HobbyConnect+-code has been noted on the card, please contact your Hobby dealer, who will send you the HobbyConnect+- code via e-mail.

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.

To enable the dealer to generate the HobbyConnect+-code, please have the following data at hand:
- the serial number of the Connect+-Box
  (can be found on the box or in the enclosed documents)
- and the vehicle identification number (VIN).

Special features indicate that a connection to the motorhome could not be set up. You will automatically be returned to the “Connect now!” page. There, you will be requested to select a connection again.This may be caused by the following:
- The box was not connected by means of the USB power supply cable.
- The box is not activated. The box activates itself automatically as soon as the van has been connected to the power supply for a certain period of time.
- The signal from the Connect+-Box is too weak. Depending on network reception, the caravan's location may be responsible for this.

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



Entering the Hobby-Connect+ key

Connection will manufactured

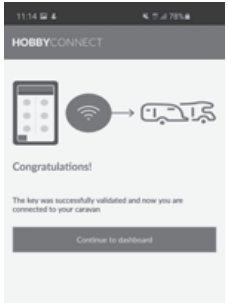
If the optional extra HobbyConnect+ has been installed in your vehicle, use the HobbyConnect+ (GSM) button on the app’s Start menu to select a connection for the components (Selecting a connection).

You will then be asked to enter the Hobby-Connect+ key.

Enter the key and then click on the Confirm button. The HobbyConnect+ Box will connect with the vehicle.

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

This procedure can take up to 30 seconds.



Successful HobbyConnect+ connection

The picture on the left shows a successful Bluetooth connection.

User interface

Using the app functions in vans (HobbyConnect/HobbyConnect+)

The user interface shows the functions that can be read out and/or controlled via the app.

> 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.

The temperatures outside and inside are displayed on the upper menu bar of the user interface. It also shows whether the vehicle is connected to the 230V mains and what type of connection this is (HobbyConnect/HobbyConnect+).

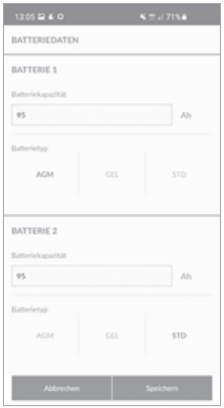
Battery Status

Battery Status

The battery status indicates the following:

- whether the battery is being discharged or charged,
- charge level,
- voltage,
- power,
- how much time the battery requires to be charged fully or how long the battery can continue to deliver power at the present current consumption,
- temperature,
- calibration of battery sensor,
- and whether the charge controller is connected to the 230V mains.

> The temperature of the battery must not exceed 50° C. If the battery is overheated, it cannot be charged.



Setting the battery type

The battery type can be set in the sub-menu.

> 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.

Filling level fresh water/ waste water tank

Water Tank

The level indicator of the water tank shows how much fresh water/waste water is in the tank in steps from 0 (empty) to 4 (full).

If the alarm function is activated, the app will send a message as soon as there is very little fresh water left in the tank.

Heating

Heating

Click on the “Heating” icon on the menu to regulate/switch the temperature in the room and for the water on and off.

The desired room temperature can be set in steps of 1° C, from +5° C to +30° C. The terms “Eco” and “Hot” stand for the two temperature levels of the grey water (Eco 40° C/Hot 60° C).

Type of operation

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

Truma: 1 lightning bolt = 0.9 kW,
2 lightning bolts = 1.8 kW

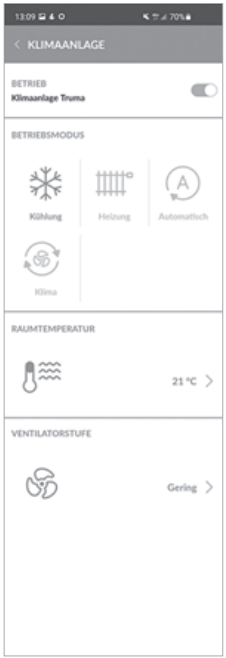
> Electric and mixed operation only possible if the Truma Combi 6E has been ordered as an optional extra.

HobbyConnect/+ can only be used to control the basic functions of the heating system. Enhanced functions are available on the manufacturer’s own LCD control panel “CP-Plus”.
Please refer also to the descriptions of the heating system in **Chapter 10 Built-in Devices.**

Refrigerator

Refrigerator

The cooling mode can be determined and the refrigerator temperature set here.



Air conditioning

Air conditioning*

Depending on how the motorhome has been equipped, this menu is used to control and regulate the air conditioning.

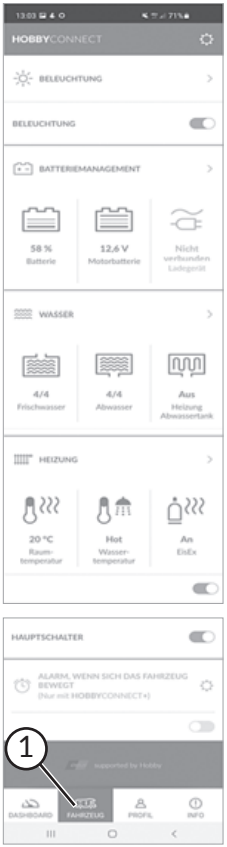
Setting the temperature

The desired temperature can be set here (16 - 31° C). This is not possible in air circulation mode, because neither the cooling nor the heating function are then active.

Setting the fan level

Depending on the type of operation, the desired fan level can be set here. When in automatic mode, the ventilation will also be regulated automatically, i.e. it is then not possible to enter a separate setting. If the heating system is on, the fan level cannot be changed.

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



Overview of the vehicle

Overview of the vehicle

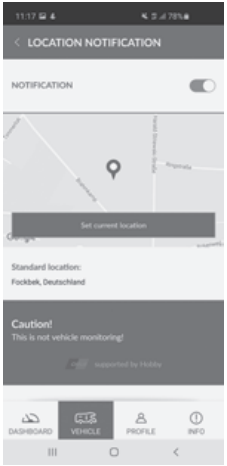
The overview of the vehicle ① gives a detailed overall view of the settings already saved, depending on how the caravan has been equipped.

Furthermore, it allows you to access the main switch. All of the components that can be accessed via the app can be switched on and off here (note: this does not apply for the 12V steady electrical devices - **see p. 68 Functions of the main switch**).

The Ice Ex cartridge is in a kind of automatic mode, provided the main switch function has been activated.

If the optional extra “Remote Control for DuoControl” is available, the Ice Ex cartridge can be switched on and off directly via the original Truma control panel on the remote indicator.

Constraints for the automatic function of the Ice Ex cartridge:
- 230V mains connection or when the motor is running
- outside temperature of < 5°C



Notifying the location

Position (only HobbyConnect+)

After parking the vehicle in a certain location, activate the “Notify location” function on your mobile device. The “Set current location” button in the app is used to save the current city/town and country for the vehicle. This enables the system to understand that the vehicle is not to be moved from its location.

Activate the app’s **“Alarm”** function to enable messages to be sent to your mobile device. 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 location saved using the “Send current location” button will be used.

Note that a security tracking system that can find the exact position of your vehicle is not used when determining the location of your van.

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

This data is not saved and the current location is always displayed provided there is a connection.

Lighting menu

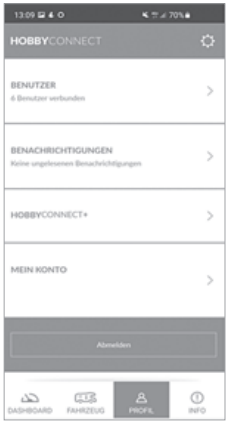
Lighting

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

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

This entry can be edited or deleted at any time ①. To call up these functions, swipe your finger from the right-hand edge of the mobile device towards the middle of the screen net to the desired light group.

The switch for the “Bed3” lighting group depends on how the vehicle has been equipped. The “Bed4” lighting group has not been assigned for vans.



Profile

View of personal data

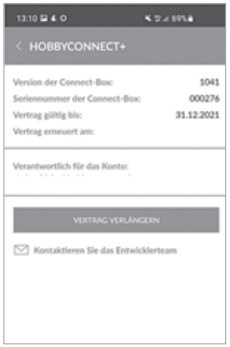
Profile/User overview

This overview displays how many users are connected to the vehicle via the Internet. If you have logged in via Bluetooth, this will be displayed here.

> A maximum of eight users can connect simultaneously to the vehicle via the Internet. If Bluetooth is used to connect to the vehicle, only one user can access the system.

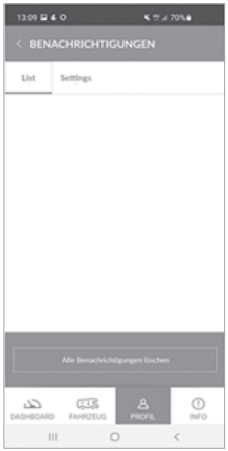
Click on “Log off” to log out of the app.

Personal data can be entered and/or amended in the “My Account” submenu (name, e-mail address, password).



Version information

Version (only for HobbyConnect+)
Click on the submenu “HobbyConnect+” in the “Profile” section to find information on your HobbyConnect+ system.

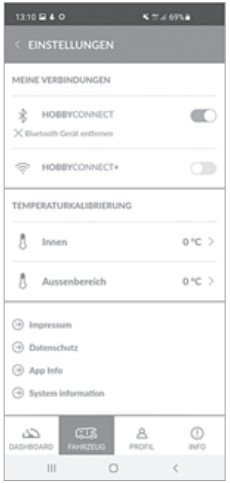


Notification settings

Notifications
The “Notification” settings enable you to decide which areas in the van you would like to be informed of by the HobbyConnect app.

The messages displayed in the system can be deleted as necessary.

Settings
Click on this icon (displayed on the left) at the top right of the user interface to access the settings overview.



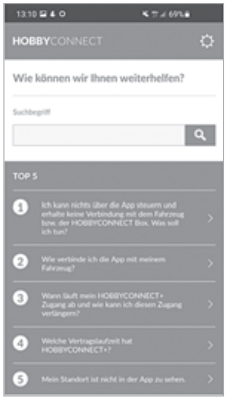
Settings

Here you can see whether there is a connection to the vehicle via HobbyConnect or HobbyConnect+.

Click on the different submenus to obtain additional app information, read about the data protection regulations or look at the legal notice.

In addition, both the indoor and the outdoor temperature can be calibrated here.

Temperature effects on the sensors may lead to a deviation between the temperature displayed and the actual temperature.



Info overview

Info overview

Use the search bar in the Info overview to enter different terms for HobbyConnect/HobbyConnect+.

If there is information on such a term in the system, it will come up when you click on Enter.

Furthermore, FAQs on HobbyConnect/HobbyConnect+ are answered in the Info overview.

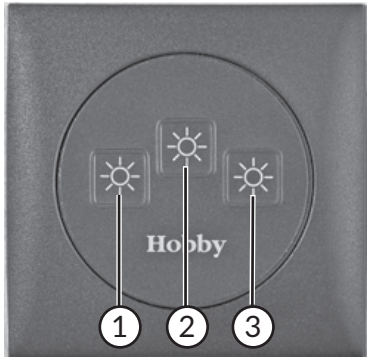
The HobbyConnect system is continuously being further developed and, depending on how the vehicle has been equipped, further functions added.

Should you have any questions regarding HobbyConnect/HobbyConnect+ please speak to your dealer or contact **support@hobbyconnect.se**

The HobbyConnect-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 HobbyConnect as one word and not two.	Check the app settings in the respective country.
The HobbyConnect+-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 the power supply; if necessary, disconnect it briefly.	Contact your dealer.
HobbyConnect+-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.



3-key control panel

7.3.2 Remote control

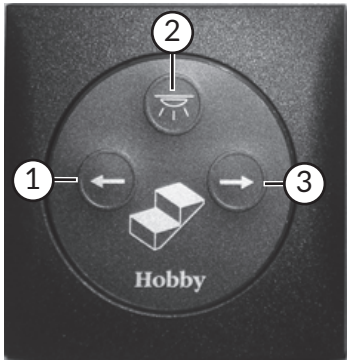
Remote control(s), bed

- 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)** 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.

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 control panel. The remote control controls the electric entrance step.

- Press the button ① to fold the step in; press it ③ again to slide the step back out.
- Briefly press the key ② to switch on the entrance light (not while the motor is running).

7.4 Smart-Trailer-System*

The Smart Trailer System consists of the sensor modules E-Level and E-Gas Level (scope of delivery: E Gas Level for one gas bottle). The E-Trailer app on your smartphone can be used to level the vehicle and to check the filling levels of the gas bottles at any time.

E-Connect

The Smart Trailer System is based on the E-Connect app. It enables the sensor modules to connect to the app on your smartphone. The sensor modules send measured values via Bluetooth to the E-Connect app, which processes them and then forwards them to the E-Trailer app.

Levelling the vehicle and gas level indicator via E-Trailer app

To use the Smart Trailer System, please install the E-Trailer app on your mobile device.

Scanning the QR code

E-Level

The E-Level sensor module can be used to level the vehicle. The Smart Trailer app shows whether the van is in a level position.

- Activate the Bluetooth function on your smartphone.
- Open the app.
- Add the E-Level module to the app by scanning the QR code which is provided.

- Open the app section of the E-Level (see illustration on the left)

Error message on E-Level

Warning messages are displayed in the app section if a measured value deviates from the default value.

> When the Smart Trailer System is operated for the first time, the vehicle must be levelled once.

E-Gas Level sensor

E-Gas Level

The E-Gas Level sensor module is used to monitor the gas level indicator. The module uses a magnetic sensor, so it can easily be attached underneath any steel gas bottle.

Scanning the QR code

- Activate the Bluetooth function on your smartphone.
- Open the app.
- Add the E-Gas Level module to the app by scanning the QR code which is provided.

- Open the app section of the E-Gas Level (see illustration on the left)

Filling level indicator

The filling level of the gas bottle is displayed in the app section.

The system can be supplemented with further sensors. Please speak to a dealer about this.

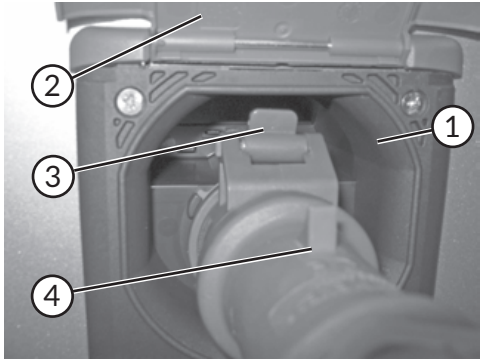
CEE-External socket

7.5 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

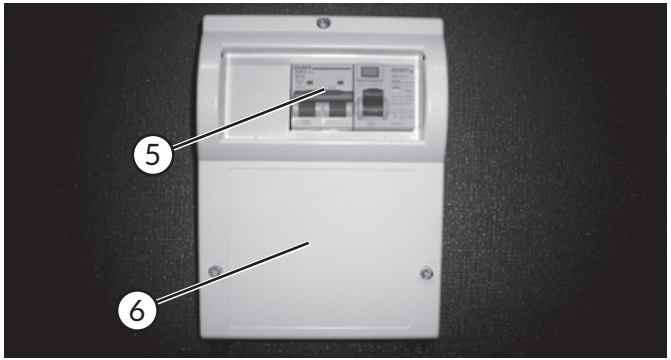
- Switch off the automatic circuit breaker ⑥ **(see also p. 90)** by pressing the rocker button ⑤ **(see also p.90)** down.
- Flip up the cover flap of the CEE external socket ② **(see Chapter 5.2 Cover Flaps).**
- Completely unwind the connector cable.
- Open the cap of the CEE feeder plug ③ by pulling it up in a 90° angle.
- Insert the plug ④ until it locks into place.
- Switch the automatic circuit breaker ⑥ **(see also p. 90)** 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 **(see p. 90)** by pressing the rocker switch down ⑤ **(see p. 90)**.
- Remove the CEE feeder plug ④.
- Press the cover flap ② of the external socket 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

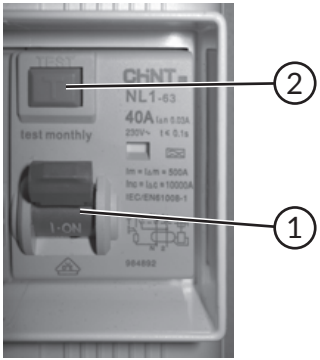
The 230V system is protected by a two-pole 13 A automatic circuit breaker ⑥, which is located in the seat chest in the seating arrangement. It can be accessed via the side compartment.

Rules for the mains connection

- Use only a 3 x 2.5 mm^2 cable with a maximum length of 25 m, a CEE plug and connector to connect the van to an external 230V 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 230V mains connection in the van has been designed for a total power consumption of 2300W. 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 230V 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 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

The charger booster is activated as soon as the motor starts to run. It then charges the habitation battery. 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.

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 following points must be checked if the battery is not charged via the alternator:

- 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?
- Is the charger booster active?

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 **(see Chapter 7.3.1 Battery status)**.
- 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.

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.

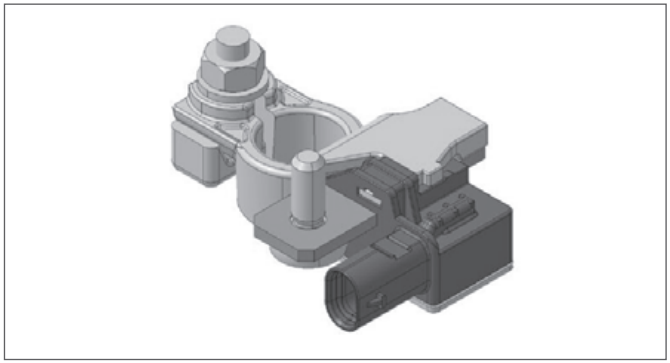
In all vehicles, the optional additional battery is mounted on a base plate in the front left passenger seat console.

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.

The battery is charged from three possible input sources:

- via the alternator when the motor is running, in combination with the charger booster
- the Dometic PerfectCharge SMP439 charger (only via 230 V power feed)
- if available, via a solar panel*



Intelligent Battery Sensor (IBS)

Battery Sensor

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.

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 is shown on the control panel display; the remaining time until discharge can be seen on the HobbyConnect app. 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 van temporarily out of service.
  - Before each journey, please check that the battery is charged (**see p. 77**). 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 (via the HobbyConnect app).

- 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 < 150mA is required to do so.

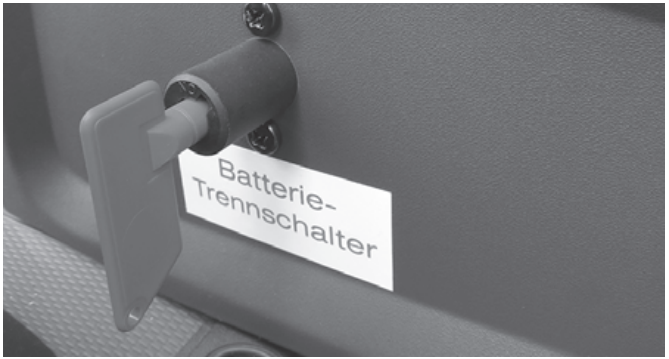
Manually calibrating the sensor

The system can be calibrated manually if no electrical devices have been switched on in 12V operation.

Opening the battery circuit breaker switches off the electronics in the superstructure (see item: battery circuit breaker). Now the sensor can calibrate 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 HobbyConnect app.

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.



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 completed 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 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 while driving or using the vehicle.
When the battery circuit breaker is open, the electrical entrance step will **not** retract 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. The radio/SAT-nav device does not work when the battery circuit breaker is on.

Battery charger

Charger Dometic PerfectCharge SMP 439

The charger supplies the batteries with electric power.

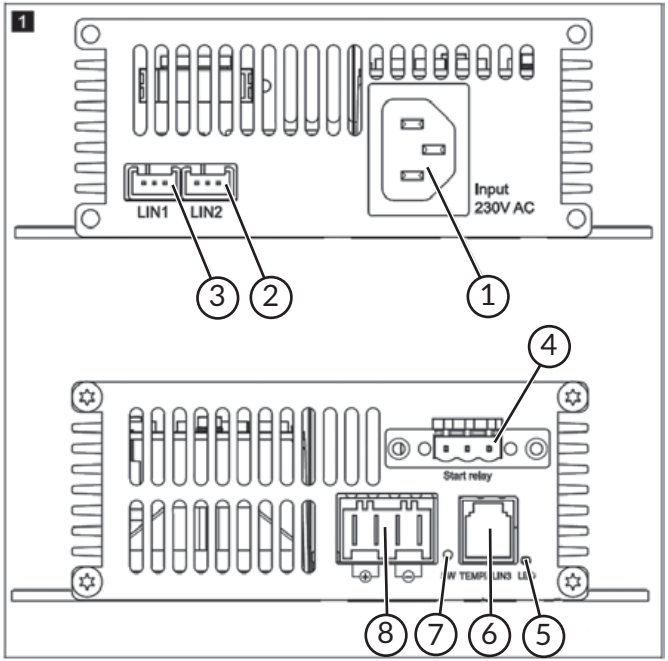
During this process, the existing cooling system runs passively; the fan is not active.

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.

Conservation charging for the starter battery only takes place parallel to the charging of the habitation battery. When the habitation battery has been sufficiently charged, the charger reduces the charging current or stops charging altogether and the starter battery is no longer charged.

Should the battery sensor measure a battery temperature of over 50°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

LED Status ⑤	Meaning
Orange, blinks fast	Phase 1
Orange, blinks slowly	Phase 2
Orange, steady light	Phase 3
Green, steady light	Phase 4
Green, blinks slowly	Phase 5
Red, steady light	Short circuit, reversed poles or defective internal fuse
Red, blinks fast	Battery or battery charger over-heated
Red, blinks slowly	Over- or undervoltage or battery overload

1: I-phase (Bulk)
The empty battery is charged with constant current (100% charging current). As soon as the battery voltage has reached the charging voltage, the charging current is reduced.

2, 3, 4: U0-phase (Absorption)
During the three-stage absorption phase (U0 phase) the voltage remains constant (U0). When the battery has been fully charged, the U0 phase is completed.

5: U-phase (Float)
After the U0 phase, the battery charger switches to conservation charging. Connected DC consumers are supplied by the device. Excess power is provided by the battery only if the requested power exceeds the capacity of the device.

Troubleshooting

LED Status ⑤	Error/Cause	Elimination
Red, blinks slowly	Over- or under-voltage of the battery	Check the battery. Switch the battery charger off and then on again.
	Defect battery	Replace the battery.
Red, blinks fast	Overheating	Ensure better ventilation of the battery charger or the battery. Ensure that no ventilation openings are covered. If necessary, reduce the surrounding temperature.
Steady red light	Short circuit, reversed poles or defective internal fuse	Use the correct polarity when connecting the battery charger. Have the short circuit repaired by an authorised work-shop. Replacements for the internal fuse can be obtained from Customer Service.

Charger booster

Charger booster

The WA 121525 charge booster is included as a standard in your van. It ensures that the ancillary battery is optimally charged while driving. The booster is a clocked up-down converter which compensates for a possibly fluctuating alternator voltage and provides a high charging current. Operation is fully automatic.

Use only battery types supported by the charger booster for the battery in the living room.

When changing the battery type: have the charger booster reset and programmed at a service centre.

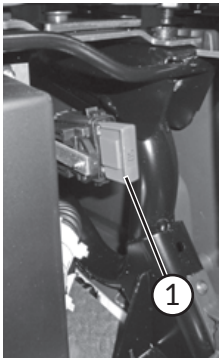
7.6 Electrical system

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* running on 230V etc., use 230V.

Assignment of fuses



Main fuse for leisure battery

Assignment of fuses

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

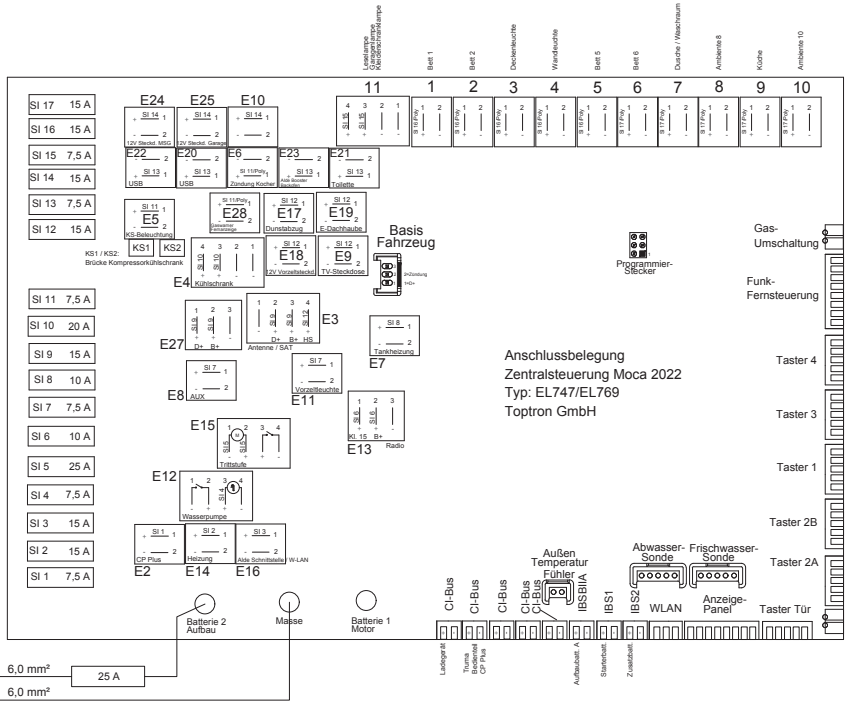
In some models, there may be slight deviations in this assignment.

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.

Assignment of connections for central control

E2: 12V Truma Heizungsbedienteil CP Plus
1: Plus / B+
2: Masse
E3: Antenne / SAT-Vorbereitung
1: Masse
2: Plus geschaltet über D+
3: Plus / B+
4: Plus geschaltet über Hauptschalter
E4: 12V Kühlschrank
1: Masse
2: Masse
3: Plus
4: Plus
E5: 12V Kühlschrankbeleuchtung
1: Plus / B+
2: Masse
E6: Zündung Kocher
1: Plus (abgesichtert durch Polyswitch)
2: Masse
E7: Tankheizung (über TFT-Panel geschaltet - Funktion aktivieren!
1: Plus bei Temp. unter 5°C + 230 V oder Motor an / D+)
2: Masse
E8: AUX: Duo Control / Eis Ex (über TFT-Panel geschaltet,
1: Plus Funktion aktivieren!)
2: Masse
E9: TV-Steckdose
1: Plus über Hauptschalter
2: Masse
E10: Reserve (12V Zusatzsteckdose)
1: Plus über Hauptschalter
2: Masse
E11: Vorzeltleuchte
1: Plus
2: Masse
E12: Wasserpumpe
1: Schaltleitung Masse
2: Schaltleitung
3: Wasserpumpe Plus
4: Wasserpumpe Masse
E13: Radio
1: Plus geschaltet über Kl.15 / Zündung
2: Plus / B+
3: Masse
E14: Heizung
1: Plus / B+
2: Masse
E15: Trittstufe
1: Motor
2: Motor
3: Endlagenschalter
4: Endlagenschalter
E16: Alde Schnittstelle / W-LAN Spannungsversorgung
1: Plus / B+
2: Masse
E17: Dunstabzugshaube
1: Plus über Hauptschalter
2: Masse
E18: 12V Vorzeltsteckdose
1: Plus über Hauptschalter
2: Masse
E19: Elektrische Dachhaube
1: Plus über Hauptschalter
2: Masse
E20: USB-Ladestecksdose Wohnbereich
1: Plus über Hauptschalter
2: Masse
E21: 12V Toilette
1: Plus über Hauptschalter
2: Masse
E22: USB-Ladestecksdose Schlafbereich
1: Plus über Hauptschalter
2: Masse
E23: Alde Booster / Backofen
1: Plus über Hauptschalter
2: Masse
E24: 12V Steckdose Mittelsitzgruppe
1: Plus über Hauptschalter
2: Masse
E25: 12V Steckdose Garage
1: Plus über Hauptschalter
2: Masse
E27: Reserve
1: Plus geschaltet über D+
2: Plus / B+
3: Masse
E28: Fernanzeige Duo C / Gaswarner
1: Plus (abgesichtert durch Polyswitch)
2: Masse



Model-specific variations may occur.

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

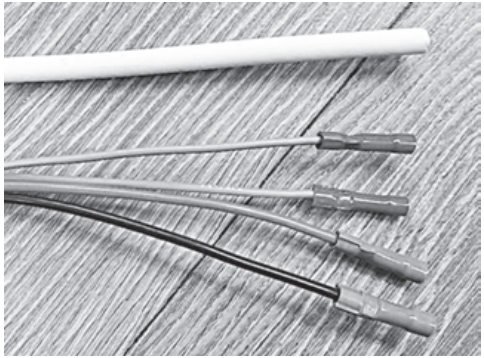
TV connections

7.7 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.



SAT cable

SAT-Cabel (E3)

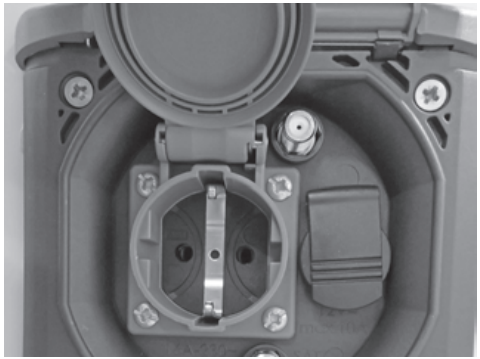
All Hobby vans have been prepared to connect a satellite antenna. This is part of the standard equipment.

The following signals, which are already been connected at the factory to the central control system, are provided:

Cable colours (E3):
black = mass
red = steady plus for ancillary battery B2
grey = D+ signal
orange = plus from ancillary battery B2 via main switch on control panel

Installation position of the antenna and the preinstallation of the satellite cable

Vantana ONTOUR Edition / De Luxe
K60 FT, K65 ET:
Behind the wooden panel for TV connections



External socket and antenna terminal in the outer tent

12V-/230V external socket incl. coaxial-connection*

As an option, your van 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

Preinstallation of the cable for the solar system

Preparation for the solar system

Solar cable

Preparation for the solar system includes an electric cable 2 x 6.0mm² which was preinstalled in the vehicle at the factory. The forward end is placed beneath the right seat console/passenger seat between the first habitation battery and the central control panel. At the rear end of the superstructure, the cable can be found near the roof in the following positions:

Installation position to prepare for the solar system

Vantana ONTOUR Editin / De Luxe
K60 FT, K65 ET:
Behind the wooden panel for TV connections

There is a label: “Preparation for solar” on the ends of the cable.

Contact your dealer if you wish to have the cable connected.

Distributor on the roof

Connecting cables / Extensions (to be found among the vehicle’s accessories)

Preparation for the roof air conditioning system*

Installation position to prepare for the roof air conditioning system*

Vantana ONTOUR Edition / De Luxe
K60 FT, K65 ET:
Wall cabinet on left-hand side at the rear of the vehicle (in the direction of traffic)

7.8 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

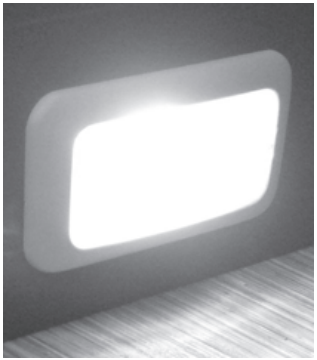


Fig. 2

Entrance light/Garage light

The entrance area by the sliding door (model-specific) as well as the rear of the van have 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/rear door is opened.

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

SAT-nav device

7.9 Mobile navigation

Your van is 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

Your van is equipped with a mobile navigation system and integrated rear view camera.

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.

The following cable has been installed:

Model	Manu-facturer	Part description	Part number
Vantana	Dometic	Camera cable for vans	9600000137

7.10 Subsequently installed devices

Subsequently installed electronic devices that can be used while driving (e.g. mobile phones, wireless equipment, radios, 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.

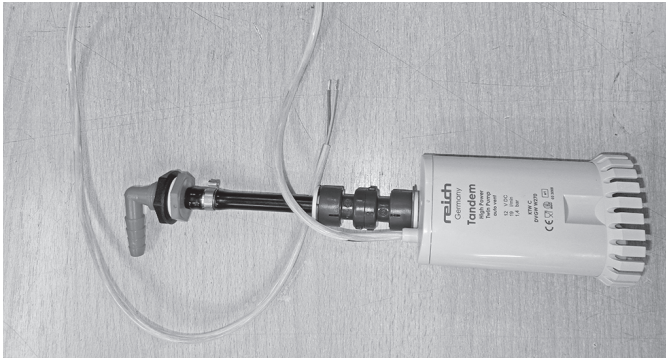
A CE mark is mandatory for devices that have been subsequently installed and which cannot be used while driving.

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

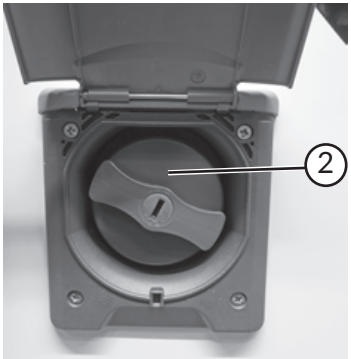
Fresh water tank

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 ② **(p. 110)** 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.
- 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.

The water in the tank should be replaced regularly **(see Chap. 12)**. Check the red service cap ③ **p. 109** regularly; it 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.

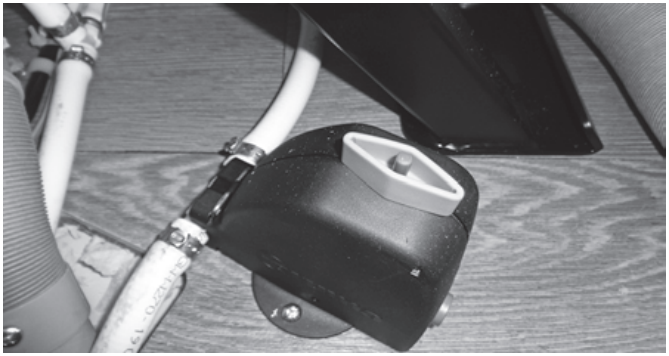
To remove water

- 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. 135 “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. 142 “Frost Control”).**



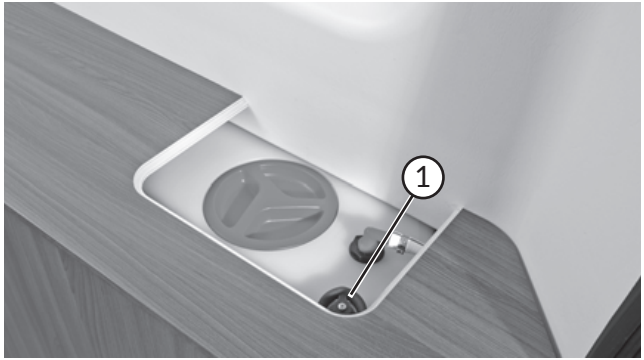
Frost Control

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.



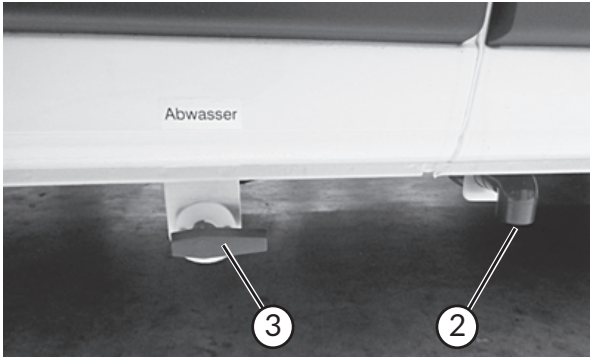
Outlet valve for fresh water tank

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.
- Push the hand shower back into its holder on the wash basin.
- Open all of the outlet valves (including the FrostControl).
- Unscrew the cap on the cleaning port of the fresh water tank ③ **(page 109).**
- 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

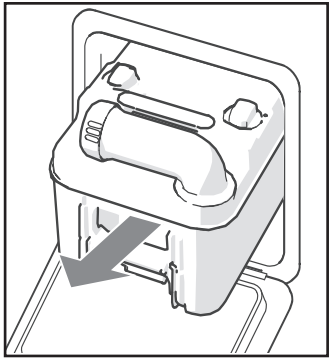
After the electric waste water tank heating system has been switched on on the control panel, the tank is heated by a heating cartridge. This prevents the waste water from freezing in a light frost.

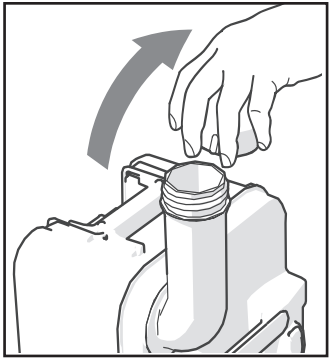
Do a small quantity of antifreeze agent (e.g. table salt) to the waste water tank if temperatures are significantly below freezing to prevent the waste water from freezing.

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. Always add cold water before pouring.

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





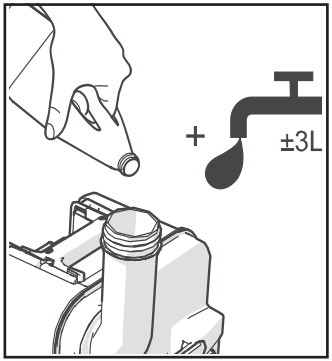
8.3 Toilet

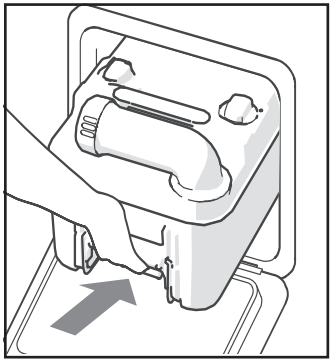
The pivoting toilette consists of two parts: a fixed toilette and a removable waste tank. Before the toilet can be used, the waste tank must first be prepared as described below and then returned to its original position.

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.

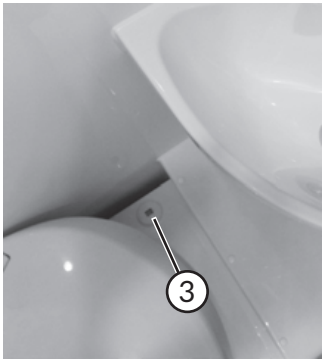
Use toilet fluids very sparingly. An overdose is no guarantee of preventing possible odours!

- 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.
- Then shut the toilet cassette access door.

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

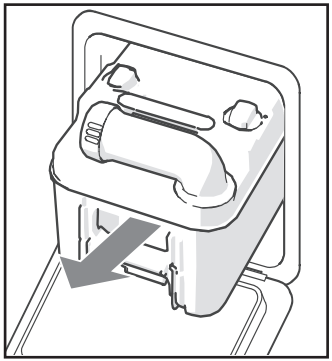
Using the rotating toilette

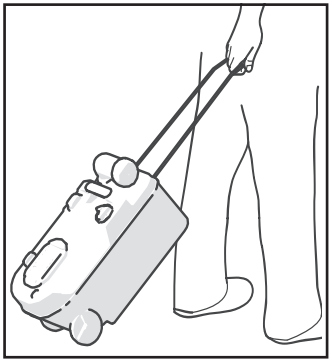
- Shut the lid of the toilette and use both hands to turn the bowl to the desired position (clockwise: no more than 90°; counter-clockwise: no more than 170°).
- Then open the cover plate by pulling the handle ① to the right.
- Press the flush ② for several seconds to flush the toilette.

③ Filling level indicator

The rotating toilette can be used whether the cover plate is open or closed. Use only special toilet paper that is suitable for van toilets. Normal toilet paper can easily cause the toilet to clog.

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





Emptying the waste tank

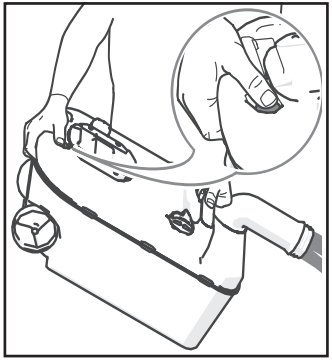
The waste tank must be emptied no later than when the single-stage filling level indicator ③ lights up red. It is recommended that the tank is emptied before this.

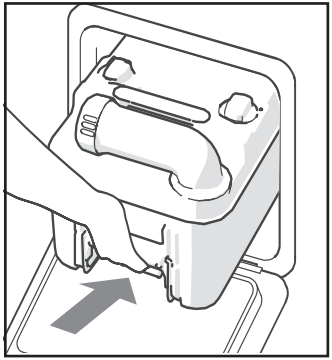
- Open the toilet flap and pull the holding bar up to remove the waste tank.

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.





- 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.
- Then shut the toilet cassette access door.

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 ¾ full when driving. Otherwise, it may leak through the ventilation system.

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 inspection of the gas system should be carried out regularly by a liquid gas expert in accordance with national regulations (annually in Great Britain). 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 discover 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 (groundsman) and, if necessary, the fire brigade.

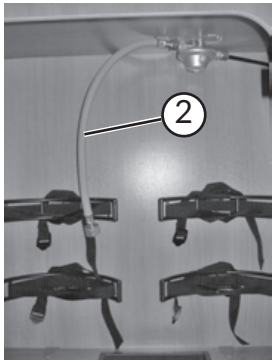
The gas fittings may only be taken into operation again after they have been checked by an expert.

Built-in objects and changes

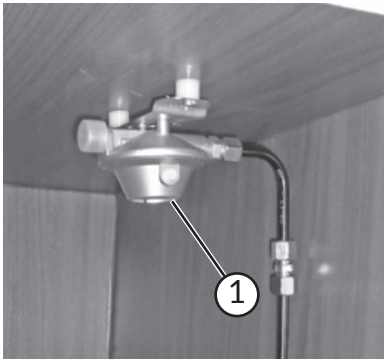
- Fixtures and changes to the gas system may only be carried out by a recognised expert for liquid gas systems.
- Only devices with a constant connection pressure of 30 mbar may be operated.
- Following any changes to the gas fittings they must be re-checked by a recognised expert, who must provide a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



Gas regulator mounted on the ceiling

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. The 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.

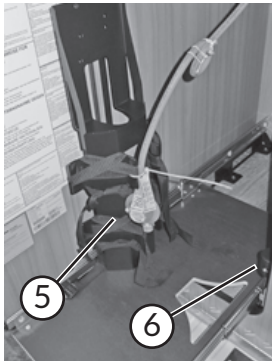
Read the manufacturer's operating manuals carefully!

Safety instructions in gas bottle container

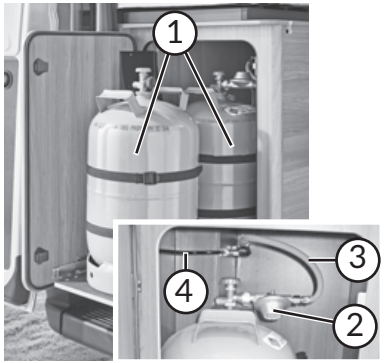
9.2 Gas supply

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



Extendable gas bottle container



Extendable gas bottle container with gas bottle

Gas bottle container

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 using two separate belts ⑤.

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

The following applies to the gas bottle container:

- 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 container's air vents.
- Ensure that third parties cannot gain access to the gas bottle container.

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

Using the extendible gas bottle container

The extendable shelf for the gas bottle container makes it easier to exchange the gas bottles.

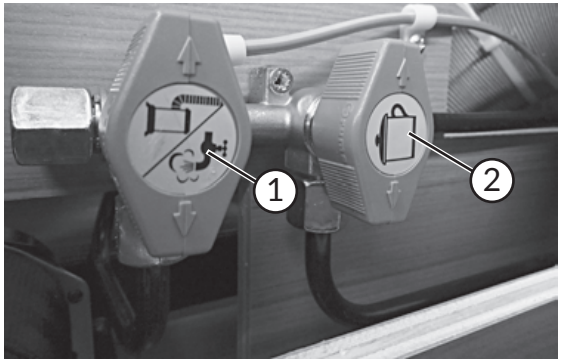
- To pull it out, pull the locking pin ⑥ up to unlock it.
- To push it back in, push the shelf back to its original position until it noticeably locks into place.

⚠ When driving, the extendable shelf for the gas bottle container must always be locked in its original position.

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.
- Pull out the extendible gas bottle container **(see p. 121)**.
- 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.
- Place a full gas bottle back in the container or the extendable gas bottle container and use both fastening straps to lash it securely.
- Screw the gas pressure regulator/ high-pressure hose* by hand on to the gas bottle (left-handed thread).
- Open the valve of the full, connected gas bottle (open both gas bottles when equipped with DuoControl CS).
- **Only when equipped with a crash sensor*:**
  Press on the hose rupture protection (green button) on the high-pressure hose **(p. 124).**
- Check that gas is not escaping from the connection point using leak detector spray.
- Push the extendable gas bottle container back in.
- 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 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.

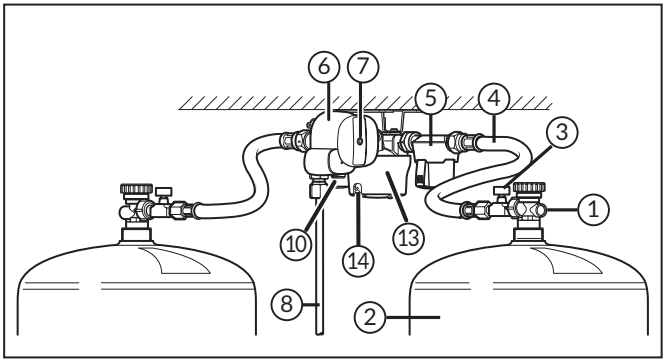
Gas regulator with a crash sensor *

Using the 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.

In an accident, the gas flow will be interrupted by a delay of 4.0 g ± 1.0 g that has an immediate and direct influence.

> 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.

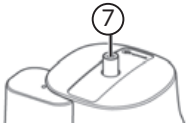


Horizontal diagram of DuoControl CS

1. Cylinder valve
2. Gas bottle
3. Hose rupture protection
4. High-pressure hose
5. Gas filter
6. DuoControl CS
7. Reset button
8. Steel/copper pipe
9. Trigger element for crash sensor
10. Screw cap (test connection)
11. Tool to assist with screwing/unscrewing
12. Torx T20
13. Adjusting knob for bottle in use/reserve bottle
14. Status display for bottle in use/reserve bottle

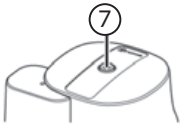
To operate

- If necessary, open gas shutoff valves.
- Connect gas bottle(s) (2) and ensure that the hose connection is in perfect technical condition.
  Open the valve (1) on the bottle.
- Press firmly for approx. 5 seconds on the hose rupture protection (3) on the high-pressure hose.



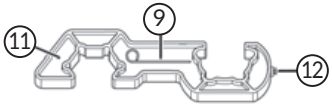
Reset button in "Not ready" position

To reset, press firmly on the yellow reset button (7), turn it lightly in a clockwise direction and hold for 10 seconds until it stays in the "Ready" position.



Reset button in "Ready" position

If the yellow reset button (7) is not pressed ("Not ready" position) then reset the crash sensor.



Tool to assist with screwing/unscrewing

If the resetting procedure is unsuccessful, use the Torx T20 (12) located by the tool to assist with screwing/unscrewing (11) to assist turning in a clockwise direction.

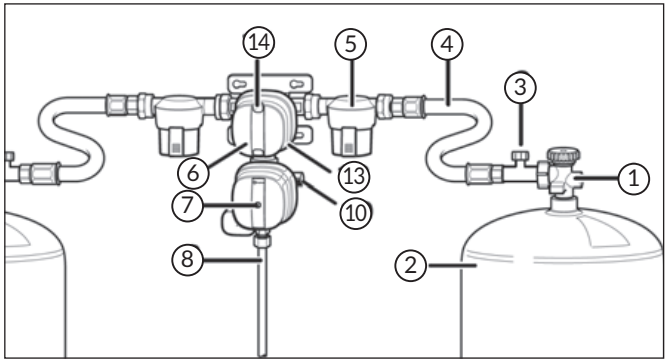


Diagram of DuoControl CS vertical

Switching valve for the two-cylinder gas unit*

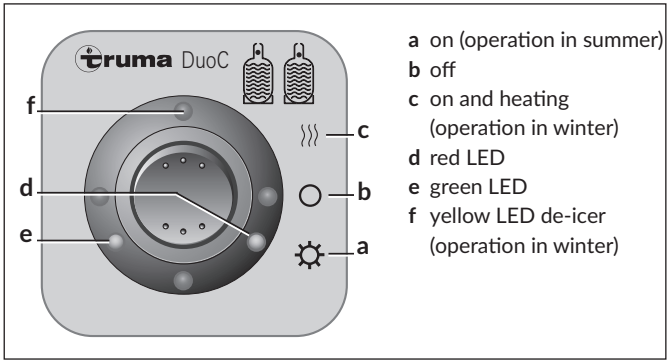
The DuoControl CS changeover valve enables you to automatically change from the operating bottle to the spare one.

(13) Turn the adjusting knob all the way to the left or right (as applicable) to indicate which bottle is to be used.

(14) Shows the status of the cylinder in use.
Green: Gas is taken from the left bottle (bottle in use).
Red: Gas is taken from the right bottle (reserve bottle); check the connection to the left bottle and its filling level.

If the pressure in the cylinder is less that 0.4 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.



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

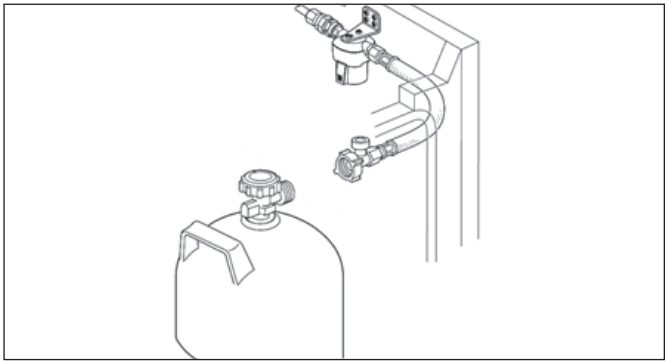
Set switch up to **c**.

In addition to indicating the status of the bottle in use, the changeover valve will be heated (yellow LED lights up).

Extendable gas bottle container DuoControl CS

DuoControl in connection with extendable shelf for gas bottle container

To ensure that the two gas bottles in the gas bottle container do not touch anything when they are extended or retracted, the hoses to the gas control knob must be connected exactly as shown in the illustration above.



Gas filter*

As an option, your vehicle can be equipped with a gas filter for the Truma DuoControl. Please observe the enclosed manufacturer's operating instructions. The filter pad should be changed every time the bottle is changed.

Changing the filter pad

Use only original Truma filter pads (Art. No. 50681-01).

Gas residue: no smoking or naked flames! Shut the gas bottle/valve and unscrew the high-pressure hose from the gas bottle before opening!

Before handling the gas filter, make sure that it always points downwards. Use the tool to assist with screwing/unscrewing (included in the scope of delivery) to check that the union nuts on the gas filter sit tightly.

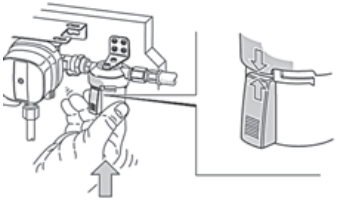
Removing the filter casing

- Press down on the snap-on bar and hold it pressed while turning the filter casing to the left. Then remove the filter casing by pulling it down.

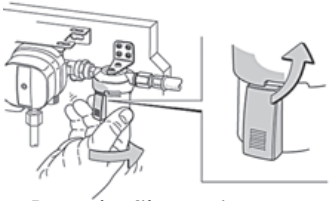
Exchanging the filter pad

- Remove the new filter pad from the plastic bag, slip the bag over the previously removed filter casing and, in one turning motion, carefully shake the old filter pad into the plastic bag. Place the new filter pad in the filter casing in such a way that it lies flat on the bottom of the casing.

Reinstalling the filter casing



- Hold the filter casing beneath the filter housing, as displayed in the illustration above.



- Press the filter casing upwards and then turn it to the right so that the snap-on bar in the filter housing snaps into place.

If using just one bottle, the free input must be shut using the enclosed sealing cap.

Disposal

Dispose of the used filter pad 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.

Gas warning system

9.3 Gas warning system*

The gas warning system detects even the smallest amounts of propane/butane and/or narcotic gases and uses an alarm signal to send off a reliable alarm. It is always ready for operation because it is connected to the on-board power supply.

Please refer to the device manufacturer's operating manual.

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. DuoControl CS).

10.2.1 Truma-Combi Heating System C4/C6 (E)*

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*, which has additional heating rods for electric operation.

Place of installation:
- in the seat chest.

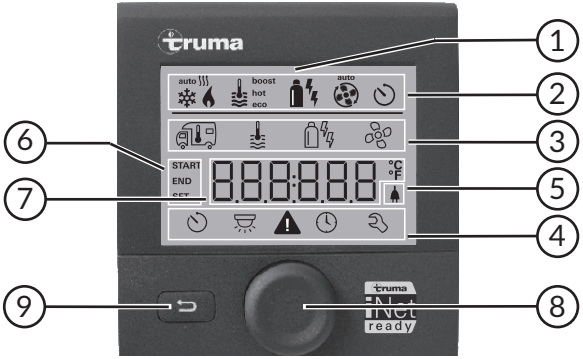
Initial operation

- Several air vents have been built into the van. 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.

LCD control panel Truma Combi CP Plus



Truma control panel "CP plus"

iNet-ready functions are available in the trailer, whereby the Truma CP plus control panel functions as an interface for operating connected devices via the Truma App and iNet Box.

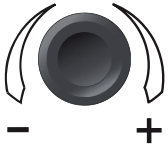
Operating and display controls

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.

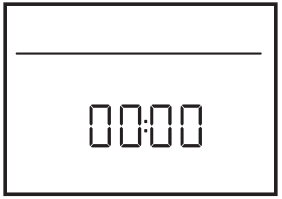
Press (3 seconds)
- Main function ON / OFF
- iNet-ready: use the adjusting knob / pushbutton to change the function (see APP mode)

„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.

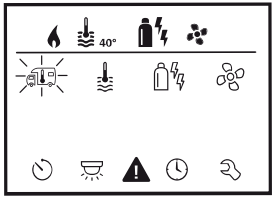
If nothing is entered for several minutes, a stand-by screen will automatically be displayed.

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 ⑧
The display shows the setting mode. The first icon blinks.

To switch on/off

To switch on

- Press the adjusting knob / pushbutton ⑧.

Previously set values / operating parameters will be reactivated after the control panel has been switched on.

To switch off

- Press the adjusting knob / pushbutton ⑧ 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

As soon as a new command is entered via the Truma app, the attached devices and the Truma CP plus are activated using the set values.

Turning on the APP mode

- Press the adjusting knob/pushbutton ⑧ approx. 2 seconds until “APP” appears on the display.
- Let go of the adjusting knob/pushbutton ⑧.
- The previously saved values will be saved.

Turning off the APP mode

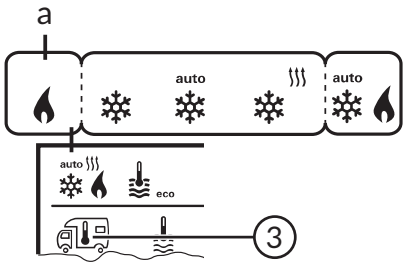
The APP mode is turned off

- when the Truma CP plus control panel is alerted by briefly pressing the adjusting knob/pushbutton ⑧. The previously saved values will then be imported for renewed operation.

Changing the room temperature

Use the adjusting knob / pushbutton ⑧ to select the icon in the menu line ③

- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton ⑧ to select the desired temperature.
- Press the adjusting knob / pushbutton ⑧ to confirm the temperature.



a = heating (HEIZ) [1)]

- 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 ⑧ for fast temperature changes (on stand-by screen).

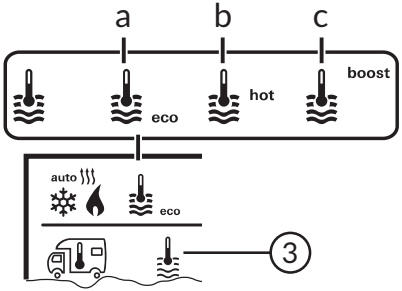
[1)] The icon will continue to blink as long as the desired room temperature has not been reached.

Changing the hot water temperature

The icon will blink until the desired water temperature is reached.

Use the adjusting knob / pushbutton ⑧ to select the icon in the menu line ③

- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton ⑧ to select the desired temperature.
- Press the adjusting knob / pushbutton ⑧ to confirm the temperature.



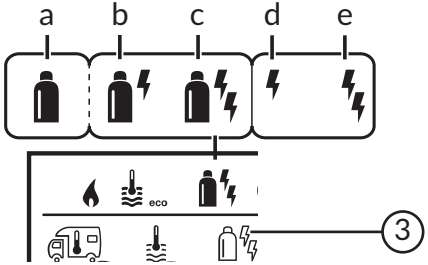
– = OFF	–	hot-water supply is switched off.
a = eco*	–	hot-water temperature of 40 °C
b = hot	–	hot-water temperature of 60 °C
c = boost	–	specifically heats up the water (water takes priority) fast for a max. period of 40 minutes After the water temperature has been reached, the room will continue to be heated.

*Temperature of the hot water may exceed 40° C if room and water heating are combined.

Selecting the type of energy * (for Combi-E heating only)

Use the adjusting knob / pushbutton ⑧ to select the icon in the menu line ③

- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton ⑧ to select the desired type of energy.
- Press the adjusting knob / pushbutton ⑧ to confirm the temperature.



Icon	Type of operation	Type of energy
a	Gas	Gas
b	MIX 1[1)]	Electricity + Gas
c	MIX 2[1)]	Electricity + Gas
d	EL 1[1)]	Electricity
e	EL 2[1)]	Electricity

[1)] 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.

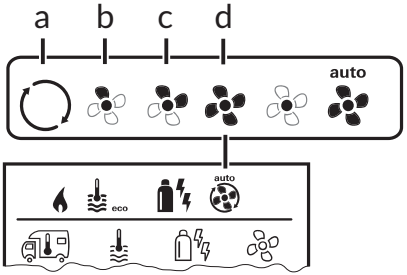
Malfunction in the combustion process (e.g. lack of fuel):

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 ⑧ to select the icon in the menu line ③.
- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton ⑧ to select the desired fan speed.
- Press the adjusting knob / pushbutton ⑧ 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[1)]	Air circulation if no devices are being operated and the hot-water supply has been switched off. RPM can be selected in 10 increments.
b	ECO	Low fan speed.
c	HIGH[2)]	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.

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”.

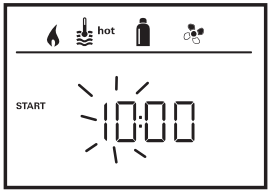
Setting the timer

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 ⑧ to select the icon in the menu line ④ .

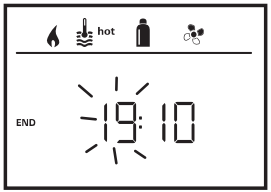
- Press to switch to the setting mode.

Entering the start time



- Use the adjusting knob / pushbutton ⑧ to set the hours and then the minutes.

Entering the end time



- Use the adjusting knob / pushbutton ⑧ 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;
- Switch the Truma CP plus control panel off to prevent the heating system from being switched on again by the Truma app or preselection timer.

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 / pushbutton ⑧ to select the desired room temperature.
- Press the adjusting knob / pushbutton ⑧ to confirm the temperature.

Setting the hot water temperature

- Use the adjusting knob / pushbutton ⑧ to select the desired hot water temperature.
- Press the adjusting knob / pushbutton ⑧ to confirm the temperature.

Selecting the type of energy * (for Combi-E heating only)

- Use the adjusting knob / pushbutton ⑧ to select the desired type of energy.
- Press the adjusting knob / pushbutton ⑧ to confirm the temperature.

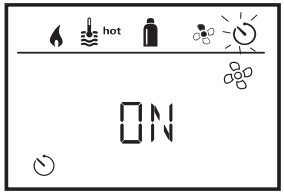
The menu item “Select type of energy” will be depicted when a heating system that uses electric heating rods has been connected **(optional extra).**

Selecting the fan speed

- Use the adjusting knob / pushbutton ⑧ to select the desired fan speed.
- Press the adjusting knob / pushbutton ⑧ to confirm the temperature.

The menu item “Select fan speed” is only available if a room temperature of 5° C or higher has been set.

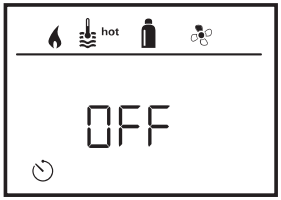
Activating the timer (ON)



- Use the adjusting knob / pushbutton ⑧ to activate the timer (ON).
- Press the adjusting knob / pushbutton ⑧ to confirm the time entered.

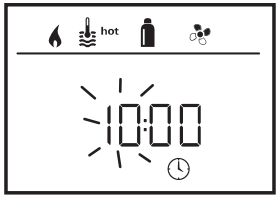
The timer will continue to remain active, even for several days, until it has been deactivated (OFF).
The icon for the timer will blink when the timer has been programmed and is active.

Deactivating the timer (OFF)



- Press to switch to the setting mode.
- Use the adjusting knob / pushbutton ⑧ to deactivate the timer (OFF).
- Press the adjusting knob / pushbutton ⑧ to confirm the time entered.

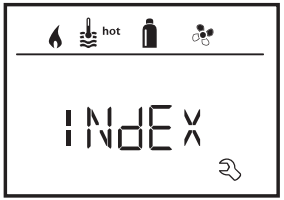
Setting the time



- The hours blink.
- Use the adjusting knob / pushbutton ⑧ to set the hours (24-hour mode).
- After pressing the adjusting knob/ pushbutton ⑧ once again, the minutes will blink.
- Press the adjusting knob / pushbutton ⑧ to confirm the time entered.

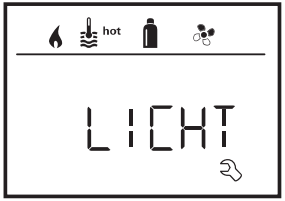
Service menu

To show the version number of the connected devices



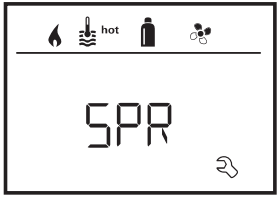
Show the version number of the heating or control panel.

Changing the background illumination of the control panel



The background illumination can be changed in 10 increments.

Changing the language

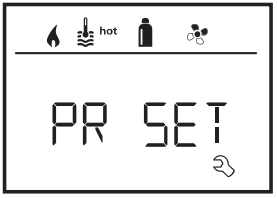


Select the desired language from the languages available (e.g. English, German, French, Italian).

Calibrating the temperature sensor (OFFSET)

The room temperature sensor for the connected heating system can be individually adjusted depending on where the sensor has been installed. The offset can be set in increments of 1°C within a range of -5°C to +5°C.

Resetting to manufacturer's default setting (RESET)

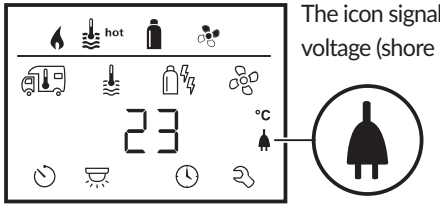


The reset function resets the control panel to the manufacturer's default setting. It deletes all of the settings you have made.

Confirming the reset

- Press the adjusting knob / push-button ⑧
- “PR SET” will appear in the display window.
- To confirm, press the adjusting knob / pushbutton ⑧ .

Display: 230V mains voltage

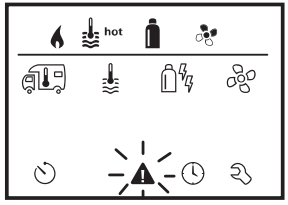


The icon signals that the 230V mains voltage (shore power) is available.

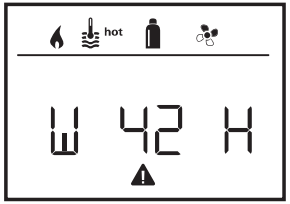
This can only be displayed in connection with a Combi E CP plus heating system that includes additional heating rods for electric operation **(optional extra)**.

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 ⑧ to select the icon.
- Press the adjusting knob / pushbutton ⑧. 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 ⑧.

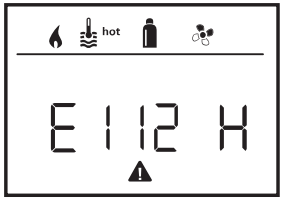
Cause not eliminated / Return to setting mode

- 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
112 = Error code
H = Heating

Cause eliminated / Return to setting mode

- Press the adjusting knob / pushbutton ⑧.
- 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.

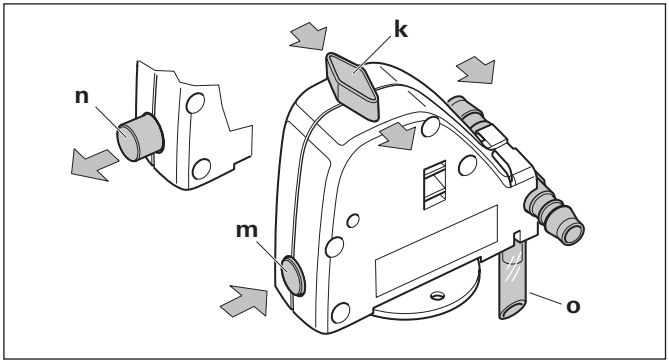


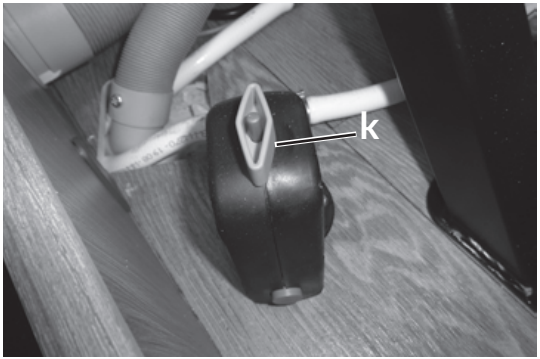
Diagram of Frost Control

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**).

10.3 Refrigerator

Please refer to the manufacturer's separate operating instructions before using the refrigerator.

The compressor refrigerator is located at the side of the kitchen unit. It holds 90 litres.

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.

Ventilation

Ventilation and de-aerating of the refrigerator/compressor is a prerequisite for sufficient cooling capacity. Cold air is sucked in through the upper ventilation grille of the refrigerator and hot air is extracted through the same grille. The ventilation grills must not be covered up or blocked.

Ensure that the ventilation grilles of the compressor refrigerator are not blocked by kitchen towels or similar objects so that they can continue to draw in air.

Kompressor 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.

Refrigerator door lock

> While driving, the refrigerator door must always be closed and locked.

The door of the refrigerator can be opened towards either the left or the right because it has hinges on both sides.

To open

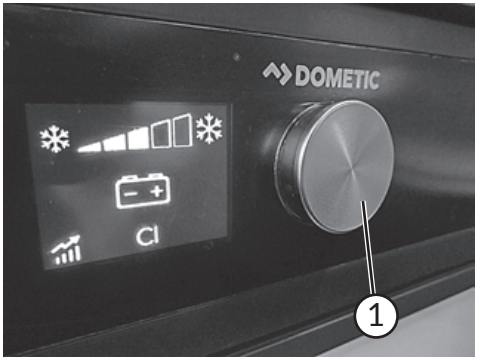
- Pull the right-hand holder towards you and then swing the door open towards the left. Proceed the other way around for the left-hand holder.

To close

- Swing the door back to its original position until you can feel it lock into place.

> If the refrigerator door can no longer be closed, the door handle on the open side of the door is blocked. Follow the device manufacturer's operating instructions to unblock the handle.

> **Danger!** Risk of crushing! Never touch the hinge. Ensure that the ventilation opening is neither blocked nor adversely affected in any manner.
>
> **You could be seriously injured!**
> Locking pins are used to lock the refrigerator. If these locking pins are manipulated or tilted/jammed, the refrigerator door may detach itself from the device **(to remedy this, please refer to the device manufacturer's operating instructions).**



Control knob

To operate

There is a TFT display on the refrigerator. Turn the control button ① to operate it.

The following symbols are displayed:

	Temperature setting indicator
	Blue snowflake: compressor is running
	White snowflake: compressor is not running
	Operating on DC (ancillary battery)
05	Warning indication with error code

User mode

User mode

Performance
- All thermostat settings selectable
- Compressor operates in high rpm mode
- External ventilation fan operates in high rpm mode

Quiet
- Thermostat settings 1, 2 and 3 are selectable
- Compressor operates in low rpm mode
- External ventilation fan operates in low rpm mode

Boost
- Thermostat settings fixed on maximum
- Compressor operates in high rpm mode
- External ventilation fan operates in high rpm mode

Settings

Settings (only RCD models)

Frame heater
Symbol lights up when the frame heater is operating.
The frame heater of the freezer compartment reduces condensation.

Symbol lights up when the refrigerator is connected to the CI bus.

Symbol lights up when child lock is enabled:
- Push the rotary button 3 times within 1,5 seconds to unlock the controls.
- After 10 seconds of inactivity the controls will lock again automatically.

Beep off:
Error messages, warning messages and door left open for an extended period are not signaled acoustically.

Beep on:
Error messages, warning messages and door left open for an extended period are signaled acoustically.

Confirm selection and return to the main menu.

Error messages are indicated by a warning symbol as well as at least one error code. In addition, a beep will go off for 2 minutes. This is repeated every 30 minutes. For more information, please refer to the device manufacturer's operating instructions.

To switch on

- Press the control button for 2 seconds. The refrigerator will start with the settings that were last selected.

Navigation

- To activate the navigation menu, press the control button.
- Turn it to select the desired submenu.
- To open the submenu you have selected, press the control button.
- Then turn the control button to navigate through the submenu. The settings selected there will be shown in blue.
- To apply the selected setting, press the control button.
- Confirm your selection by pressing .

To switch off

- Press the control button for 4 seconds. A beep will go off, after which the refrigerator shuts itself off.

Operating modes

PERFORMANCE mode:
Standard mode
Selection of all temperature levels (1 to 5)

QUIET mode:
Decreased fan and compressor speed with reduced noise, e.g. if the user wants to relax or sleep.
Selection of three temperature levels (1 to 3)

BOOST mode:
Maximum performance, e.g. for an immediate cool down or after a larger amount of uncooled foodstuff has been put in the refrigerator.
No selection of temperature levels

If the QUIET or BOOST mode is activated, the refrigerator will automatically go back to PERFORMANCE mode after 8 hours. The same configuration is used that was activated before switching to QUIET or BOOST mode.

In surrounding temperatures from +15 °C to +25 °C, select the medium temperature setting.

2-burner gas cooker

10.4 Gas cooker

The kitchen unit in the van is fitted with a 2-burner gas cooker.

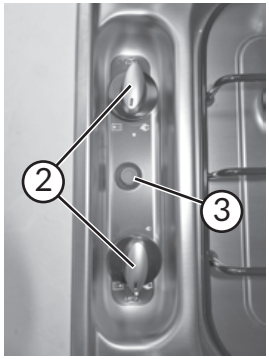
Before initial operation

- 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 com-bustion 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.

If, while cooking, fat or hot oil should catch fire, do not douse the flames with water; instead, use a damp cloth or something similar to choke the flames and notify the fire department immediately!



Operating elements for gas cooker

Operation

- Use the main switch on the Control Panel to turn on the 12V power supply.
- Open the glass cover ① **(p.147)**.
- Press the adjusting knob ② for the desired burner and turn it clockwise to the ignition position (large flame). Continue to press it and, at the same time, press the igniter ③ quickly several times.
- After the flame has ignited, continue to press the adjusting knob ② for a further 5 seconds (setting still large flame) so enable the safety thermocouple to heat up.
- Then let go of the adjusting knob ② and turn it to the desired setting (large or small flame).
- Repeat this procedure if the flame does not ignite.
- To turn off the gas flame, turn the rotary switch ② back to the "●" 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!**

Only ignite the flame when there are no pots or other objects on the hob.

Do not allow the flame to burn higher than the top edge of your pot; keep it lower.

Never allow gas to escape unburned because of the risk of explosion.

After cooking, leave the glass cover ① **(page 147)** 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!**

SAT-System

10.5 Satellite/TV combination*

This combination consists of a TELECO satellite system, a 22” LED flat screen TV incl. a tuner/receiver + DVD player and a corresponding extendable arm. This TV enables the satellite system to be controlled directly via the TV. Therefore, no further control units or devices are required.

LED flat screen TV

Control buttons

Control buttons on the TV

Various control buttons can be found on the right-hand side of the flat screen TV. They are used to control the most important functions:

Designation	Explanation
INPUT	Select a source Press the button several times to select a signal source
MENU	Show menu
CH+	Next channel
	Navigation
VOL+	Increase volume
	Navigation

Main switch

Designation	Explanation
VOL-	Reduce volume
	Navigation
PLAY	Play/stop DVD (in DVD mode)
EJECT	Eject DVD
POWER	Switch TV on/off

Switching on the TV

- Press the main switch that is located underneath the TV. The TV is now in standby mode.
- Then press the red power button on the remote control for the TV or the power button located directly on the right-hand side of the TV.

To switch off

- Press the red power button on the remote control or the power button located directly on the TV (standby mode).
- Press the main switch on the TV. The TV has now been switched off.

For information on adjusting the settings for the TV, e.g. language and picture settings, please refer to the TV manufacturer's operating instructions.

Controlling the satellite system

The satellite system is controlled via the TV or manually using the control unit.

Before positioning the antenna, check to ensure that there are no obstacles close by (tress, houses, etc.) so that it will receive satellite signals without any problems.

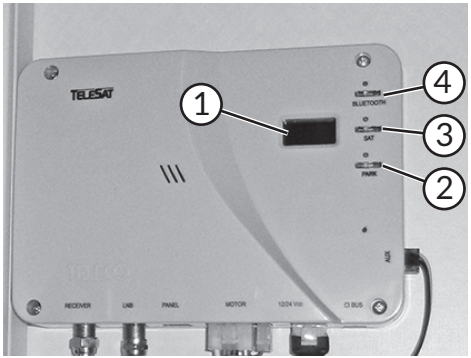
Never use the satellite antenna if there are strong winds (80 km/hr.) as this may damage the product.

Adjusting the satellite and positioning the satellite system

After the TV has been switched on, an initial installation must be carried out for the satellite receiver and a search started for the channels.

In this connection, please refer also to the device manufacturer's operating manual.

Remote control



Control unit for satellite system

Use the yellow "ON" and "PARK" buttons to raise and lower the antenna ⑤.

Use the remote control for the TV or the control unit (located in the wardrobe/wall cabinet) as follows to adjust the antenna:

Information on ongoing procedures and possible error messages are shown in the display ①.

Press on the PARK key ② to raise and lower the antenna. While the antenna is being raised or lowered, the key's LED will blink.

Use the satellite key ③ to start the search for channels. During an ongoing search the key's LED will blink.

Use the Bluetooth key ④ to activate and deactivate the Bluetooth connection to a smartphone or tablet. Please refer to the device manufacturer's operating instructions for more information on this function.

After the initial positioning of the antenna, the system remembers the satellite's position and adjusts itself accordingly.

⚠

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.

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

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]
Motorisation / Chassis (cannot be retrofitted)	
Citroën Jumper 2.2 l - BlueHDi 165, Euro 6d-FINAL, 2,179 ccm, 121 kW/165 PS, with start/stop technology	4.0
FIAT Ducato 2.2 l - 160 Multijet Power, Euro 6d-FINAL, 2,184 ccm, 118 kW/160 PS, with start/stop technology and ECO package	15.0
Base vehicle	
Air-conditioning, automatic	0.0
Automatic transmission, 9-gear	18.0
FIAT "Anti Fog Plus" package (incl. Heated windscreen and Webasto auxiliary heating system)	4.6
FIAT "Easy Driving" package (incl. adaptive Cruise Control, intelligent Speed Assistant and drowsiness detection system)	0.5
Fog lights	2.0
Heated windscreen	2.0
HOBBY "Plus" package (incl. electr. parking brake, Keyless Entry & Go, inductive charger cradle for mobile phone, Techno Trim dashboard design and fully digital dashboard)	2.0
LED daytime running lights	0.2

Object	Weight[kg]
Tow coupling	29.0
Design variations	
Black design package (incl. black "Skid Plate" ornamental strip, black rims and fog lights with cornering lights)	2.2
Varnish: choose from Black Metallic, Silver Metallic, Expedition Grey or Lanzarote Grey	0.0
Driver's cab	
"HOBBYTOP" panorama roof window, hinged, double glazed and tinted	0.0
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, left/right in sleeping area, each	1.9
Hanging window panel, hinged, double glazed and tinted, left/right in sleeping area, each	2.1
Superstructure	
Bicycle carrier THULE for 2 bicycles, black, carrying capacity: 35 kg	9.5

Object	Weight[kg]
Roof bonnet Dometic-Seitz Micro-Heki 280 x 280 mm with pleated blinds and insect screen for bathroom	2.0
Upholstery combination	
"Kos"	0.0
Living room	
Fitted carpet in living room, removable	10.0
Sleeping area	
Conversion of driver's cab into beds, incl. cushions	10.0
Conversion of seating arrangement into beds, incl. cushions	14.0
Water/gas/electricity	
Additional AGM vehicle battery 12V / 95 Ah	28.0
Additional sockets, 2 x 12V / 2 x 230V	2.0
External socket, 12V/230V, incl. satellite/TV connection	0.4
Gas pressure regulator TRUMA DuoControl incl. automatic changeover system, crash sensor, Ice Ex and gas filter	2.4
HOBBYCONNECT+, remote control for on-board equipment via mobile communication by app	0.6
Remote indicator for gas pressure regulator TRUMA DuoControl	0.6

Object	Weight[kg]
Smart Trailer System (to level the vehicle and gas level indicator via E-Trailer app)	0.8
USB twin charger socket, 1 each for living room and bedroom	0.1
Waste water tank, 90 l, heated	1.0
Wireless alarm system with gas alarm for narcotic gases, propane and butane	1.0
Heating/air-conditioning	
Auxiliary heating WEBASTO Thermo-Top	9.5
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	
Satellite/TV combination consisting of TELECO satellite system, LED flat screen TV 22" incl. tuner / receiver and DVD player, extendable arm for TV	15.4

For Euro 6d-FINAL engines, the CO2 value in the CoC is determined, among other things, using the mass of the vehicle. For this reason, the delivery condition of the vehicle ex factory must not be changed in any way before its initial registration by attaching, installing or converting any kind of special accessories.

Chapter 12: Maintenance and Care

12.1 Maintenance

Maintenance intervals

There are stipulated maintenance intervals for the van 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 of the van is responsible for scheduling this inspection in good time.

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.

Always observe the maintenance intervals for the Fiat or Citroen base 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

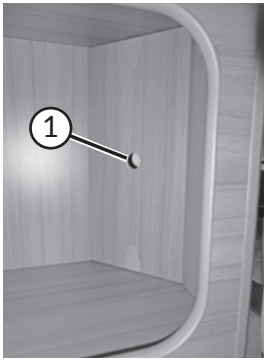
The components in the brake system are part of the General Type Approval ("Allgemeinen Betriebserlaubnis", ABE).
If you change the components in the brake system, the type approval expires. Any changes are only possible if they have been released by the manufacturer.

> It is in your own interest to have the brakes checked regularly by your Fiat or Citroen workshop.

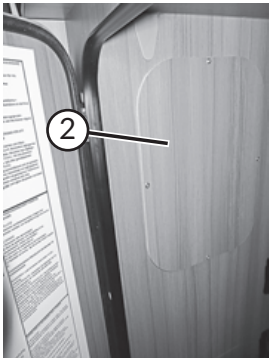
The following applies when maintaining the brake system

- 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 or Citroen Jumper operating instructions.



Access Fig. 1



Access Fig. 2

12.3 Changing the rear light bulbs

The rear light bulbs **(Fig. 1)** can be accessed to the right of the rear door, in the upper open compartment. Remove the cover by inserting a finger into the recess ① 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. 2, model-specific**). Loosen the screws to remove the cover ②.

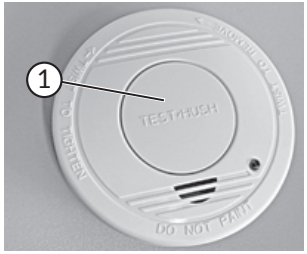
If several bulbs have to be replaced, take care to ensure that they are not accidentally switched and that everything goes back in its original place.
Before changing bulbs, disconnect the power supply in the van and switch the ignition off.

Bulbs can be hot!

Ensure that no liquids (e.g. rainwater) run into the covers.

12.4 Changing the battery and maintenance of the smoke detector

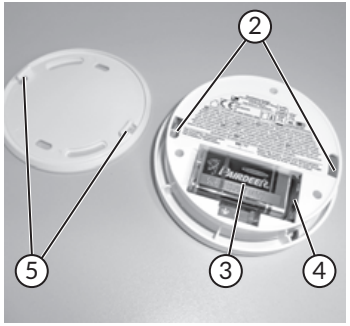
Please observe the operating instructions of the device manufacturer.



Smoke detector closed

Maintenance
The smoke detector system does not require any maintenance. From time to time, remove the dust from the cover of the detector and ensure that the air slots are not dirty or blocked up by insects or similar objects.

If necessary, the detector should be wiped off with a dry cloth and then hoovered on the outside approx. twice a year.



Smoke detector opened

1. Test button
2. Holes for the lock
3. Block battery, type 9VDC 6F22
4. Pins for battery contact
5. Locking pegs

Changing the battery
To ensure that the block battery continues to function correctly it must be changed regularly, but no later than when the warning signal beeps.

- Carefully turn the cover of the smoke detector anti-clockwise until it can be removed from its mount.
- Take out the used block battery and unpin it from the pins.
- Connect the new block battery to the pins, ensuring that the pins click into place on the poles of the block battery.
- Place the battery in the smoke detector's battery container.
- Place the cover of the smoke detector so that the holes for the lock are over the locking pegs. Carefully turn the cover clockwise until it locks into the mount.

Test

- Press the test button for at least 4 seconds until the alarm goes off. The alarm goes off when the electronic system is working. It will stop as soon as you let go of the test button.

Test the smoke detector every time the battery has been changed.

Batteries should never be thrown in the container for normal household waste. Always return used batteries to a shop that sells batteries or take them to a designated collection point.

12.5 Airing

For a comfortable climate inside the van, there must be sufficient ventilation. You will notice an increased amount of condensation inside the van on cooler days or after it has not been used for a prolonged period of time. This condensation may be particularly heavy on single-glazed windows. Damp spots are sometimes even noticeable on furniture surfaces, the inner side of outside walls, and often also in cupboards. Furthermore, such dampness can cause mould to build up, which then rapidly spreads to other surfaces. This situation not only impairs your sense of well-being, but can also lead to damaged components. This condensation is generally caused by the air in the room. One of the properties of air is that it can absorb water. The hotter the air is, the more water it can absorb (relative humidity). If air that is totally saturated with water vapour cools down and reaches its saturation point, it gives off part of the water in the form of condensation. This is also known as a “cold bridge”. However, condensation occurs primarily when there is little airflow due to structural conditions or insufficient airing.

Condensation is caused by

- insufficient volume inside the van
- breathing and perspiration of the passengers
- bringing in damp clothing
- operating a gas cooker
- Showering, washing or doing the washing-up with very warm or hot water

While sleeping, a person loses about one litre of water per night through the pores of their skin and breathing. The additional water vapour in the air must be discharged from the recreational vehicle by airing it sufficiently at regular intervals. An air change of 0.5 to 1 ACH (Air change per hour) is required if only for reasons of hygiene to ensure that the level of toxic substances and odorous pollutants in the air in the room remains low.

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.

A high level of humidity can cause the edge of the mirror to corrode. After airing, dry any remaining damp spots with a cloth that has not been sprayed with or dipped in cleaning agents.

Air the van as required in an energy-conscious manner. Although this means that some heating energy will be lost, it is in the interests of a healthy room temperature and to prevent any damage from moisture. What is important is to ensure that the loss of heating energy is kept as low as possible. This is best achieved by airing intensively for a brief period at regular intervals. Therefore, you should open the skylights, windows and doors as far as possible for a short time, thus creating a draft. After approx. 10 to 15 minutes the stale, moist air in the room will be replaced by fresh, dry air which, after heating up, can again absorb additional water vapour.

12.6 Care

The following applies for their care

- clean plastic parts (e.g. fenders, skirts) using hot water up to 60°C and mild washing-up liquid

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 trailer should be thoroughly cleaned at least once a year or if it is soiled. In coastal areas (less than 1500 m away from salt water), the outside of the trailer should be cleaned twice a year.

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, storage lockers/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.

> Use warm water to clean the windows. Wipe the mirror dry with a soft cloth. Never use cleaning agents or abrasive and aggressive detergents that contain softeners or solvents! Wipe windows with a damp microfibre or leather cloth, wiping in circles.
>
> Only wipe the mirror carefully with a slightly damp microfibre cloth if there are stubborn stains on it.

> Never use razor blades to clean the mirror or window panes!
>
> 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! Never remove the covers from mattresses or cushions.
- If necessary, wash them carefully using the foam from mild-action detergent.

Cleaning instructions for materials that containTeflon

- 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.

FiAT's specifications for dealing with plastic parts

FiAT recommends that normal cleaning of plastic parts inside the vehicle is carried out using a cloth that has been wet with a solution of water and a neutral detergent. To remove greasy or stubborn stains, use special products for cleaning plastic parts which do not contain any solvents and were developed so as not to change the appearance and colour of the components.

Never use alcohol, gasoline or products derived from them to clean the glass on the dashboard.

When disinfecting the steering wheel, ensure that the alcohol-based solution does not come into contact with the instrument cluster. You could first spray the disinfectant on a suitable cloth to avoid spraying it on the instrument cluster.

The following applies for the fitted carpet *

- 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

> Using chemical substances for cleaning can cause rust deposits to build up.
> Please also observe the manufacturer's cleaning instructions.

Fresh water tank

- Rinse it regularly with clean, clear water.
- Clean the sealing surfaces in the tank and grease them with Vaseline.

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:**
- Keep the ventilation grille clean. The door seal should be rubbed once a year with talcum power to keep it supple and the expandable fold should be checked for tears.
- Check the drain-off of the condensation regularly. If necessity, clean the condensation drain-off. If this is clogged, the condensation will collect on the floor of the 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!

12.7 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 12.6**).
- 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 water cannot run into the venting on the floor and the heating system.

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 12V main switch.

12.8 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 several times a day.

> If, despite all of these measures, condensation forms, simply wipe it away.
>
> Before entering the van, remove the snow from shoes and clothing 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.
- Avoid continuous airing during the heating period. Open windows cause a considerably greater loss of heat than brief airing.
- Turn down the heating when airing. Be careful when there is frost outside! The heating system may only be turned off when briefly airing the van; otherwise, there is a danger

than the water may freeze.

- 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.
- Switch the refrigerator off, defrost and then clean it. Leave the refrigerator door open to prevent mould.

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

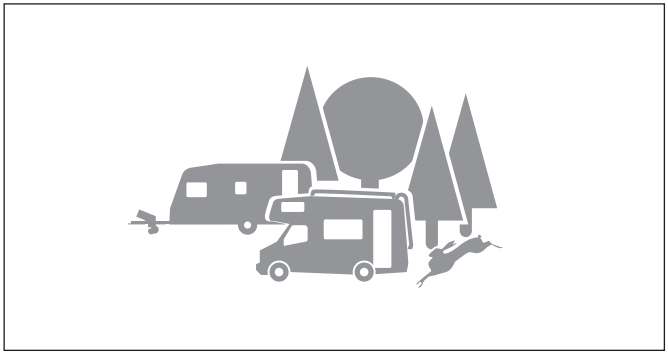
- Meter the exact use of ventilation in the vehicle and the heating valve.
- Attach the winter mats to the side windows and windshield of the driver's cab (e.g. thermal curtain*, **see 6.7**).
- Attach the insulating mat between the driver‘s cab and the interior of the van (not included in scope of delivery).
- 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

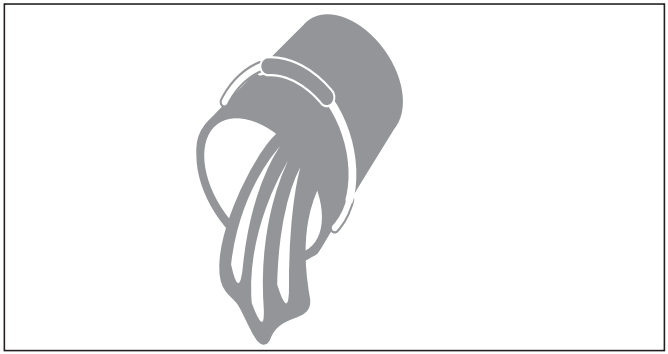
Environmentally fair use

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

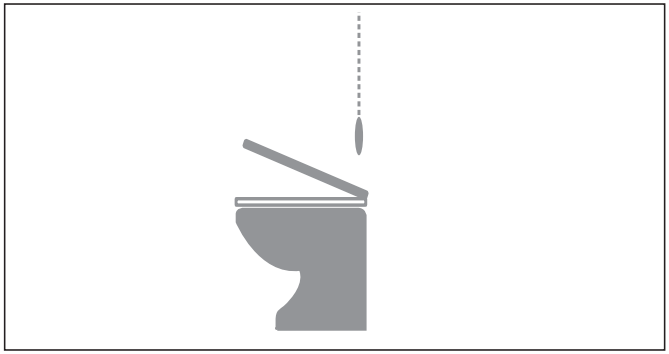
- If you plan on spending a longer period of time in cities and communities, find out in advance about special campsites for vans and mobile homes and use them.
- Do not spoil the peace and cleanliness of nature.
- Dispose of wast water and rubbish in the proper way.
- Act in an exemplary manner so that 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 manholes! 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.
- Never dispose of your household trash in the containers provided in rest areas.
- 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 or Citroën dealer and expertly recycled.

Please note that you are required by law to hand over your end-of-life vehicle to an authorised collection point, an authorised disposal point or an authorised treatment facility.

Information on where to find the next treatment facility can be obtained directly from the manufacturer of the base vehicle. Contact in Great Britain:
Fiat: www.fiat.co.uk
Citroën: www.citroen.co.uk

To deregister an end-of-life vehicle, a so-called 'Certificate of Destruction' is required which confirms that the vehicle was duly accepted by the facility for treatment. This certificate may only be issued by certified, authorised treatment facilities.

Conditions for taking back and treating a vehicle free of charge:
- The vehicle contains essential components such as the engine, transmission, etc., coachwork, chassis, catalytic converter or electronic control devices.
- There is no foreign waste in the vehicle.
- The vehicle is or was registered in a member country of the European Union for at least one month before it is immobilised.
- The registration documents are handed in together with the vehicle.

Chapter 14: Technical Data

14.1 Chassis Data

Hobby Modell	Model	Type	Base vehicle	Motorisation[3] Model	exhaust gas emissions	Chassis	Belt system Aguti	Seats
K60 FT	Vantana ONTOUR EDITION	C1	Jumper Light	140 PS (103 kW)	Euro 6d ISC-FCM	Hochdach L3H2	G2000 ASBC (Art. 122161)	4
K65 ET	Vantana ONTOUR EDITION	C1	Jumper Light	140 PS (103 kW)	Euro 6d ISC-FCM	Hochdach L4H2	G2000 ASBC (Art. 122161)	4
K60 FT	Vantana De Luxe	K1	Ducato Light	140 PS (103 kW)	Euro 6d ISC-FCM	Hochdach L4H2	G2000 ASBC (Art. 122161)	4
K65 ET	Vantana De Luxe	K1	Ducato Light	140 PS (103 kW)	Euro 6d ISC-FCM	Hochdach L5H2	G2000 ASBC (Art. 122161)	4

All measurements in [mm] all weights in [kg]

1) without wing mirror
2) tow coupling is a special accessory
3) 140 Multijet 3: 103 kW (140 PS); 160 Multijet 3 Power: 118 kW (160 PS)
Citroën: BlueHDi 140: 103 kW (140 PS); BlueHDi 165: 121 kW (165 PS))
4) front overhang
5) rear overhang

t.p.o.w. [kg]	Permiss. front axle load	Permiss. rear axle load	Unbraked trailer load 2)	Braked trailer load 2)	Max. permissible drawbar load 2)	Maximum towing weight	Total length	Height	Width 1)	Front tread width	Rear tread width	Wheel base	ÜV 4)	ÜH 5)
3500	1850	2000	750	2500	100	6000	5998	2739	2050	1810	1790	4035	948	1015
3500	1850	2000	750	2500	100	6000	6363	2739	2050	1810	1790	4035	948	1380
3500	1850	2000	750	2500	100	6000	5998	2669	2050	1810	1790	4035	948	1015
3500	1850	2000	750	2500	100	6000	6363	2669	2050	1810	1790	4035	948	1380

14.2 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
K60 FT	Vantana ONTOUR EDITION	2740	75	69	2884	121	3005	3500	495
K65 ET	Vantana ONTOUR EDITION	2794	75	69	2938	121	3059	3500	441
K60 FT	Vantana De Luxe	2707	75	69	2851	121	2972	3500	528
K65 ET	Vantana De Luxe	2756	75	69	2900	121	3021	3500	479

14.3 Tyres and rims

		Light chassis			Series			Optional extra		
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***
K60 FT	Vantana ONTOUR EDITION	3500	1850	2000	**225/75 R 16 CP**	---	6 J x 16, ET 68	---	**---**	5 / 71 / 118
K65 ET	Vantana ONTOUR EDITION	3500	1850	2000	**225/75 R 16 CP**	---	6 J x 16, ET 68	---	**---**	5 / 71 / 118
K60 FT	Vantana De Luxe	3500	1850[1)]	2000	225/75 R 16 CP	---	6 J x 16, ET 68	---	---	5 / 71 / 118
K65 ET	Vantana De Luxe	3500	1850[1)]	2000	225/75 R 16 CP	---	6 J x 16, ET 68	---	---	5 / 71 / 118

Vehicles with automatic transmission have the brake system used for the maxi chassis (wheel mounting: 5/78/130)

1) Front axle load 1,960 kg in vehicles with automatic transmission (optional).

* No. of tyre bolts / centralising collars / bolt circle

14.4 Tyre pressure values

Van	
Tyres	**Tyre pressure (bar)**
Camping tyres (CP)	
225/75 R 16 CP	front: 5,5 rear: 5,5
Standard and winter tyres (C)	
225/75 R 16 C	front: 5,2 rear: 5,2

Always observe the information given for tyre pressure values which you will find on the label attached to the vehicle.

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