



SIESTA • OPTIMA

MANUAL 

Version 10/2015

Hobby



Dear Camper,

Congratulations on the purchase of your new HOBBY motor home. 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 motor homes even better. Our fully fitted and highly sophisticated models enable us to offer you the perfect setting for the most enjoyable days of the year.

Please read this user manual carefully, even if you have already been driving a motor home for quite some time. This will help to prevent operating errors and damage to the vehicle and its equipment. Handling all of the technical details correctly will increase the pleasure you get from driving this vehicle and help to retain the value of your motor home.

If this user manual should be unable to provide the required assistance, a close, pan-European network of dealers is available for further help. Take advantage of your authorised dealer's experience and technical knowledge - we recommend speaking to them in detail before taking your first trip with your HOBBY motor home.

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

Your

HOBBY – Wohnwagenwerk

Ing. Harald Striewski GmbH

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Chapter 1: Introduction

General information

Our motor homes are continuously being further developed 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 of the vehicle, your dealer will be happy to answer them.

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

sengers may be hurt or the motor home damaged if the safety instructions in this user manual and the warning stickers placed throughout the motor home 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 motor home only when it is technically in top condition.
- Any defects that affect the safety of passengers or the motor home 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 taking your first drive

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

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 consistency of the motor home. Your dealer will give you a guarantee booklet, "5 Years' Guarantee on Consistency" when you pick up your vehicle.



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

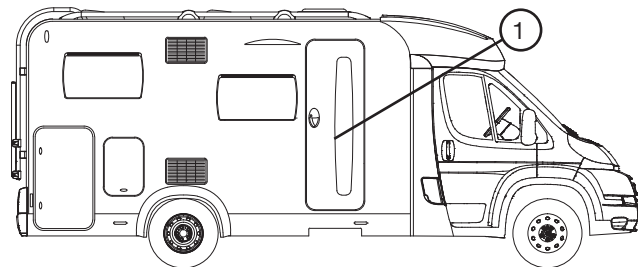
1.2 Designations in the operating instructions

This manual explains the motor home in the following manner:

Texts and illustrations

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

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



Indicating details with the help of position numbers

Lists

Lists are given in the form of key words and shown as bullet points using “-”.

Handling instructions

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

Notes



Notes point out important details that ensure your motor home 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 make you aware of dangers that may lead to material being damaged or even people being hurt if they are not observed.

Environmental Tips



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

Optional Extras

You have selected a mobile home that is equipped to taste.

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

Differences and, thus, all of the optional extras are marked with an asterisk „★”.



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

Timeliness of This Manual

The high level of quality and security for mobile homes is ensured by means of continuous further 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 motorhome has been designed as a mobile travel accommodation for private, not commercial use. It is not intended for permanent residence. Furthermore, no more than the number of people for which this camper has been planned may spend the night in the vehicle. When the camper is on the road, it may only be used in accordance with road traffic regulations and national vehicle safety standards.

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

Each person travelling in the mobile home must sit on a seat that is equipped with a seatbelt and wear the seatbelt whenever the vehicle is in motion. The number of people travelling in the mobile home may not exceed the number of seats equipped with a seatbelt.

Please ensure that the technically permissible maximum weight of the motorhome and the permitted axle load(s) per axle are not exceeded.

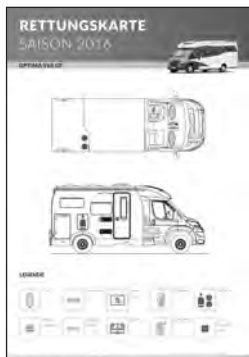
No use of the motorhome other than that described here is permitted; any other use is regarded as contrary to the intended use.

2.2 General information

- The mobile home may only be driven on public roads by someone with a valid driving licence category for such vehicles.
- Operating and user instructions for built-in equipment (refrigerator, heating, cooker, etc.) as well as for the basic vehicle must be observed at all times.
- If accessories or optional equipment is to be installed, this may change the measurements, weight and road performance of the engine home. 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 engine home. Information on tyre and rim sizes can be found in the user manual or in **Chapter 14.4**.



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



Example of a rescue sheet for the Optima V60 GF

Rescue sheets

The rescue sheet for the mobile home can be found behind the sun visor. Should there be an accident, the rescue team can obtain all of the important information for this specific model from the rescue sheet.



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

2.3 Fire protection

Precautions against fire

- Never leave children alone in the vehicle.
- Keep inflammable materials away from all heating and cooking devices.
- Any changes to the electric system, accelerator system or built-in devices may only be carried out by an authorised workshop.
- Install a fire extinguisher next to the main entrance.
- Ensure that everyone is familiar with the guidelines on the fire extinguisher.
- Store a fire blanket near the cooker.
- Do not block any escape routes.
- Familiarise yourself with all safety measures set up on the property.

Fighting fire

- Immediately evacuate all passengers.
- Close the main stop valve on the accelerator cylinder and the accelerator stop valves for the consumer loads.
- 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.

2.4 Equipment

2.4.1 Emergency equipment

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

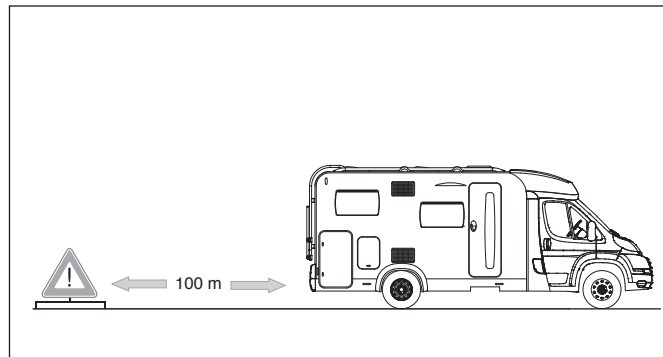
First-aid kit

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

Reflective 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.

- comes 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 emergency strip of the engine way because of an accident or breakdown.



Minimum distance between warning triangle and mobile home

Warning triangle

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

In an emergency

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



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



Mobile homes with a technically permissible maximum weight of more than 3.5 tons must also carry a flashing warning light; with a technically permissible maximum weight of more than 4 tons they must also carry at least two (2) chocks (not included in the scope of delivery).



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 external storage locker or under the bed.

2.5 Before driving

2.5.1 What to observe before taking your first drive

Vehicle registration

Every vehicle that drives on public roads must be registered. This also applies to your new engine home. 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 caravan.
- if applicable: direct debit mandate for taxes

General inspection

In common with passenger cars new engine homes with a permissible total weight up to 3.5 tonnes do not have to undergo a general inspection for the first three years after initial registration. After this they must undergo a general inspection every two years. Engine homes weighing between 3.5 and 7.5 tonnes must under-

go a general inspection every two years during the first six years following initial registration. After this a general inspection must be carried out every year.

The general inspection 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!

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



- **Tighten the nuts on the wheels after driving the first 50 miles with your camper.**
- **Switch off the gas-operated built-in devices before putting petrol in the tank.**

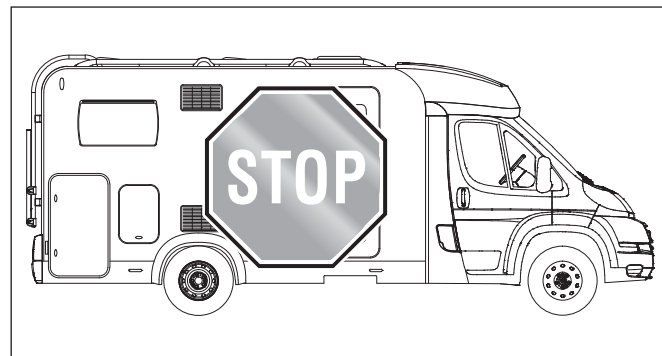
2.5.2 Before each drive

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 accelerator system.
- Set the vehicle's wing mirror.
- Completely open and fasten the dimming system* on the front and side windows.
- In winter, the roof must be cleared of snow and ice before driving.
- Regularly check the tyre pressure before driving. False tyre pressure can cause excessive wear, damage to the tyres or even lead to a burst tyre (**see also Chapter 14.5**).
- Check liquids such as oil, coolant, brake fluid and wind-screen washer fluid and top them up if necessary.



Only begin to drive when your motorhome 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:

Loading

The following applies for loading:

- Load evenly. Heavy or bulky objects should be placed in the lower compartments!
- After loading, use a public weighing facility to check the total weight and axle loads.

Rear garage (model-specific)

When loading the rear garage adhere to the permissible axle loads and the technically permissible total mass. Distribute payload evenly. Excess point loads will damage the floor covering.



- The maximum permissible load for the rear external storage locker is 150 kg.
- On no account should the permissible rear axle load be exceeded.
- Due to load removal on the front axle, it is considerably more difficult to handle the vehicle when the rear garage is fully loaded.

Roof load (50 kg maximum)

The height of the motor home may vary from one journey to the next due to different roof loads.

The following applies for roof loads:

- Add the measurement of the roof load to the height of the motor home.
- Place a not visibly in the driver's cab giving the overall height. This saves having to calculate the height when driving under bridges and through tunnels.

Battery



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

Driver's cabin

Do not forget the following

- Set the sitting position.

Preparing the vehicle

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

Preparing the vehicle

- If the levelling supports* have been extended, retract them.
- Close all the windows in the engine home as well as skylights in the roof.
- Retract the entrance step.
- Close the tap for the waste water tank.
- Close all of the gas stop valves on the 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, SecuMotion)
- If necessary remove the 230 V electric cable from the exterior socket.

- If necessary, slide the TV antenna* in as far as possible or retract the satellite dish*.
- If necessary secure any loads on the roof ensuring that they cannot slide.
- If necessary secure bicycles*; ensure that they cannot slide and check that the existing lighting systems are not covered.
- If necessary turn off the light in the tent in front of the engine home.
- Should there be a rear ladder, fold and secure it.
- If necessary, roll up the awning and stow the crank securely in the mobile home.

Interior

Some preparations must also be carried out inside the motor home.

Preparing the interior

- Sort loose objects and stow them in the compartments.
- Place heavy objects in the lower compartments.
- If necessary switch the refrigerator to 12 V operation.
- Ensure that no liquids, including those in the refrigerator, will leak.
- Secure accelerator cylinders.
- Fold down and secure the table.
- Turn off interior lights.

- Secure the table and, if possible, lower it.
- Close doors (including refrigerator door), drawers and flaps firmly.
- If necessary, secure the TV mount and, if possible, dismantle the TV and store it securely.
- Heavy and/or voluminous objects (e.g. TV, radio) must be secured before driving.
- Fully open the Remis Blinds* for the driver's cab and lock it into place.
- If necessary, secure the shower doors.



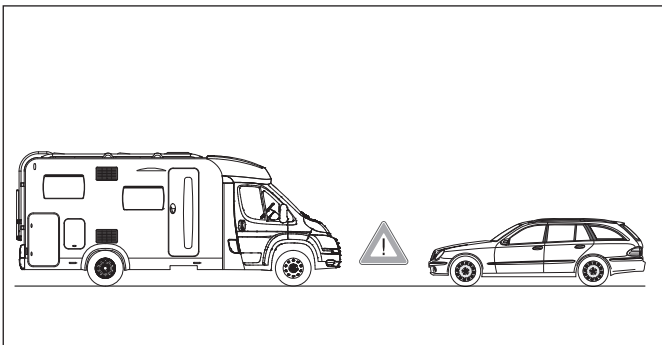
Do not overload the vehicle! It is imperative that you not the permissible axle loads, the technically permissible overall mass as well as the permissible height, width and length of the motor home.

Gas bottles may only be transported when they are securely fastened in the gas bottle container provided.

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



Place a note with all important measures and weights in a visible place in both the motor home and the driver's cabin.



Observe the specific features of the mobile home's driving performance!

2.6 While driving

Your motor home is not an automobile!

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

Passenger safety

The following applies while driving:

- Only those seats equipped with safety 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 install children's car seats on seats that have been fitted by the manufacturer with three-point belts.
- Turn the swivel seats in the direction of traffic and lock them into place. The seats may not be turned while driving.
- Lock the sliding seat* into its original position.
- Do not open the door latch!
- No extra passengers may remain in the vehicle!

Driving

Take a trial drive before leaving on your first large journey in order to familiarize yourself with the motor home. 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 mobile home. Due to the relatively long rear overhang larger vehicles can veer to one side and, in unfavourable conditions, the rear can hit the ground.
- Be careful when driving into inner courtyards and through entrance gates.
- The motor home may start to swing from side to side in cross-winds, on wet or icy roads.
- If the mobile home starts to swing, step carefully but firmly on the brake to stabilise the vehicle.

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

Driving around corners

Due to its height, a motor home begins to sway more quickly than an automobile.

The following applies for driving around corners

- Never drive too quickly into a corner!
- 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 mobile home may swing out.

Driving economically

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

The following applies for braking

- Not the longer braking distance, especially on wet roads.
- When driving downhill, select a gear that is not higher than when driving uphill.

Reversing/Manoeuvring

Your engine home 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.

Getting petrol

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

The following applies when getting petrol:

- Turn off all accelerator devices (heating, refrigerator, etc.)!
- Turn off all mobile phones!
- Never get anything other than diesel fuel.
- Never mistakenly fill the fresh water tank with fuel.

2.7 After driving

Selecting a parking space

The following applies for selecting a parking space

- Select a parking space that is as level as possible.
- If possible, pick your spot in daylight.

Securing the vehicle

The following applies when securing the vehicle

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



If the temperature is below 0°C only put the handbrake on lightly and ensure that the vehicle is in gear to prevent the handbrake from freezing up!



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

Switching electric consumption:

The following applies when switching electric consumption

- Switch the refrigerator from 12 V to accelerator or 230 V. Otherwise, if the engine is not on, the 12 V electrical supply will automatically turn itself off after a few minutes.
- Open the main stop valve on the accelerator cylinder and the accelerator stop valve on the consumer 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 drive to ensure they are clean. Disinfect and rinse the drinking water facility 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 expire!



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

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



VIN of the base vehicle

3.2 Vehicle identification number (VIN)

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

To identify it more easily, the VIN can also be found on a label on the dashboard, 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 (in the motor compartment on the upper front cross member of the radiator).

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



Hobby name plate

- ① Approval number
- ② Manufacturer's version
- ③ Vehicle identification number
- ④ Permissible maximum weight
- ⑤ Permissible towing weight
- ⑥ Permissible axle load, 1st axle
- ⑦ Permissible axle load, 2nd axle

3.3 Loading

3.3.1 General information

Rules for loading:

- Spread the load evenly between the left and right-hand side of the motor home. Heavy or bulky objects belong in the lower storage compartments and near the axle.
- Never overload the rear of the mobile home, because this will have a negative influence on its driving performance.
- The lower the mobile home's centre of gravity, the better its driving performance and response in curves.
- Store baggage in the interior in cupboards and storage compartments.
- Heavy objects should be stowed securely to prevent them from slipping.
- Lighter objects (clothing) should be stowed in the wall cupboards.
- Secure doors and flaps.
- Check the technically permissible maximum weight and the axle load(s) after you have finished loading.



The maximum axle loads as well as the technically permissible overall mass entered in the vehicle's documents may 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 masses for mobile homes

EU Directive 1230/2012 applies at a European level for calculating the masses and resultant additional loads for mobile homes. 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 previous construction stages (Fiat). This mass takes into account the specific operating conditions that are based on the model of the mobile home and its performance, including such factors as material strength, load-carrying capacity of the axles and tyres, etc. For safety reasons, this mass must never be exceeded!

2. Mass when the vehicle is ready to start

The mass when ready to drive is equal to the weight of the empty vehicle including lubricants, tools, spare tyre (or tyre repair kit), petrol (90 %), ancillary battery, all of the standard equipment installed by the factory as well as 75 kg for the driver. In addition, the masses for the fresh water and gas storage containers, which have been filled to 100 % of their total capacity, must be added. The masses are calculated in detail as follows:

	FIAT Siesta, Optima
a) Supply of liquefied petroleum gas	
Number of built-in gas regulators:	1
Weight of an 11 kg aluminium bottle:	5,5
Weight of 11 kg gas inflation:	11
Total:	16,5
b) Liquids	
100 l fresh water tank:	100
10 l hot water heater (heating):	10
Total basic equipment:	126,5 kg

3. Additional equipment / optional extras

Mass of the equipment that was assembled by the manufacturer in or on the mobile home in addition to the standard equipment. These optional extras will be shown in the actual mass 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 / additional load

Difference between the technically permissible maximum weight and the mass when ready to drive, plus the mass of the passengers and the mass 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 sleeping spaces

L = total length of the superstructure

The minimum loading capacity includes objects that users may carry in the mobile home which are not included in the mass when ready to drive 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 when ready to drive), the loading capacity/additional load (Item 5) can be increased by this value.



Tow coupling

3.4 Towing fixture *

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



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

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



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

If the technically permissible maximum weight is increased, the trailer load is reduced, respectively. Again, in this case the trailer load cannot be increased.

3.5 Externally mounted fixtures

Registering accessories in the vehicle's documents

- Have your HOBBY dealer mount your externally mounted fixtures.
- Take your motor home to a technical support organisation or technical service provider (e.g. MOT).
- The technical support organisation will approve the fittings and draw up a corresponding expertise.
(road traffic authorities)
- Take the expertise 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.



Please remember that the tow coupling, motorcycle carrier, pneumatic suspension and/or additional leaf springs must be entered in the registration document.

Please note that mounting additional equipment reduces the load your motor home can carry.

3.6 Automatic transmission *

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

FIAT Comfort-Matic

The gearshift lever on the dashboard has three fixed positions:

- the centre position for selecting the forward gear,
- N for selecting the neutral position (engine is idle),
- R for selecting the reverse gear.

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

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

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

Manual operation

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

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

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

Automatic operation

The lever must be pressed in the direction of A/M in order to switch automatic operation on or off. The system automatically shifts gears on the basis of the vehicle's speed, the engine rpm and the position of the gas pedal. If necessary, the system will shift down one or more gears when you press the gas pedal to the floorboard. This will provide you with the required performance and torque to achieve the acceleration you require.

Parking the vehicle

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



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



If the vehicle is not moving and you have already shifted into gear, always step on 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 shift 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 shift into 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 stepping on 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 the first time.

Chapter 4: Wheels and Tyres

4.1 Wheels

The following applies for tyre bolts

If you are driving a new vehicle, or after changing a tyre, tighten the wheel bolts 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 fixing material 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 bolts:

Rim size	Fiat Ducato
16"	180 Nm
15"	160 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 permitted by the manufacturer of the basic vehicle.

- 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 stretch 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 drives on poor roads.
- Never drive an overloaded vehicle.



Tubeless tyres have been mounted on your HOBBY motor home. 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 sludge 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 mounted to tyres that are just as large as the tyres originally mounted on your vehicle.

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

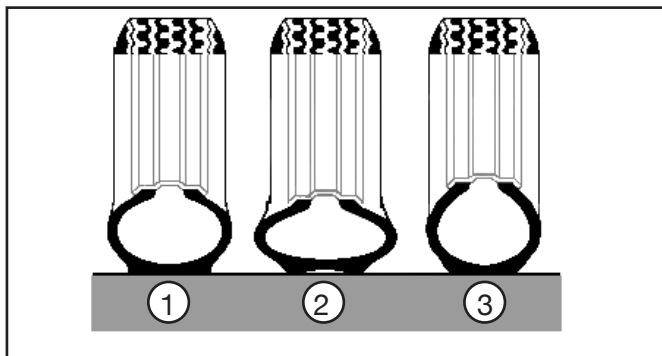
Ornamental hub caps must be removed before putting on snow chains.

4.3 Tyre pressure

The inflation pressure of all tyres as well as the spare tyre should be checked approx. every 4 weeks and before you go on longer journeys.

The following applies when checking inflation pressure:

- Check the pressure only when the tyre is cold.
- If checking or correcting the pressure of a warm tyre, the pressure must be 0.3 bar higher than for a cold tyre.
- Check and fix tyre pressure every four weeks (but at least every three months) and before every drive.
- 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.



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

4.4 Tyre profile depth and age of tyres

Replace your tyres as soon as the tread depth is only 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 may 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 used seldom or not at all.

Tyre manufacturers' recommendations

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



DOT number

Age of tyres

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

Example:

DOT 1414 means week 14 in the year of manufacture (here: 2014).

4.5 Wheel rims

Only use the rims noted in the registration documents.
Should you wish to use other rims, please note the following.

The following applies when using other wheel rims:

- Size,
- construction,
- injection depth and
- The load bearing capacity must be sufficient for the permissible total axle weight.
- The cone of the fastening screw must correspond to the construction of the wheel rim. (cone washer, spherical wheel bolt)



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

4.6 Changing a tyre

Preparing to change the tyre

- Park the vehicle on a surface that is as level and firm as possible.
- Should there be a blowout on a public road, switch on the warning lights and set up the warning triangle.
- Pull the hand brake, shift to first gear and align the wheels so that they are straight.
- 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 mounting screws, but do not remove them.
- Jack up the vehicle until the wheel is 2 -3 cm above the ground.
- Reset the car jack if it slips while the vehicle is being jacked up.
- Remove the wheel mounting screws 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 bolts on and tighten them in a diagonal sequence.
- Lower the car jack and remove it.

- Tighten the wheel mounting screws evenly with the wheel spanner. Please refer to the operating instructions for the base vehicle for the specified value of the tightening torque of the wheel mounting screws.



After changing the tyre, the wheel screws 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) may 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!

The levelling supports * may not be used as a car jack!



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



Fast tyre repair kit

4.7 Fast tyre repair kit

Your mobile home 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.



Please refer to the FIAT manual for instructions on how to use the fast tyre repair kit.

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

Chapter 5: Exterior Structure

5.1 Ventilation

The following applies for ventilation:

Ventilation is important if you want to feel comfortable in your motor home. Draft-free ventilation is integrated in your mobile home 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.



We recommend that you open the roof bonnets whenever you live in the motor home.

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



Ventilation grill, refrigerator

Refrigerator

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

Ventilation and de-aerating of the van is a prerequisite for sufficient cooling capacity. When the refrigerator is not being run, the ventilation grills can be closed using the appropriate covers.

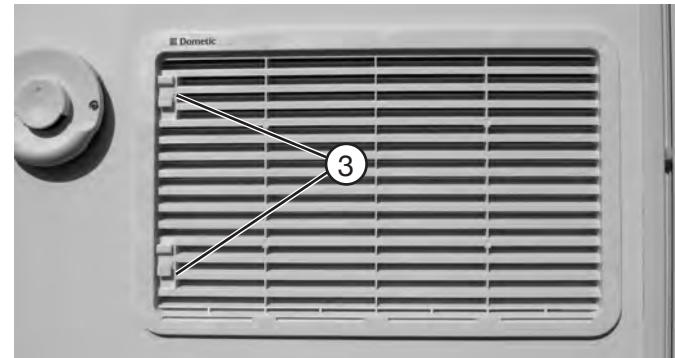


Do not block the refrigerator's ventilation grill so as not to restrict cooling performance and the functions of the refrigerator.

These winter panels are a chargeable option; they can be ordered from your dealer.

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

We recommend that you park the motor home in the shade if the temperature outside is very high.



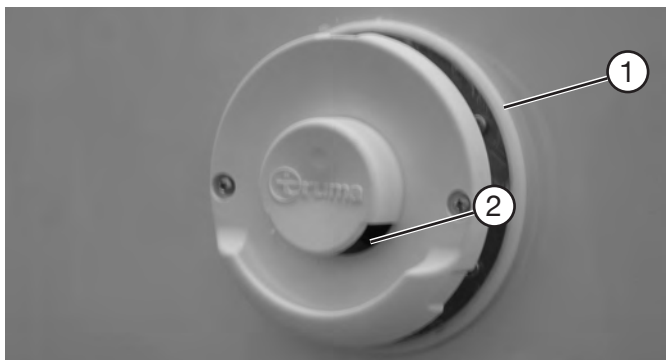
Locks for ventilation grill

Removing the ventilation grills during maintenance or repair

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



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



Heating flue

Heating

Power 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 mobile home. **Danger of suffocation!**

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

5.2 Opening and closing doors and flaps

Keys to the vehicle

The following keys are supplied with the motor home:

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



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

- two keys that fit the following locks on the structure:
 - entrance door,
 - service flaps,
 - toilet flaps,
 - Gas box flap,
 - Garage flap (model-specific),
 - fresh water filler neck.
- a key that fits the lock for the:
 - rear ladder*



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



Entry door from the outside

Entrance door external

Opening

- Use key to unlock door.
- Pull on door handle.
- Open door.

Closing

- Close door.
- Turn key until you hear the bolt lock into place.
- Turn key back to verticle position and pull it out.



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

Only drive when the entry door is shut.



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



Entry door from the inside

Entrance door internal

Opening

- Pull on the handle ① until the door opens.

Closing

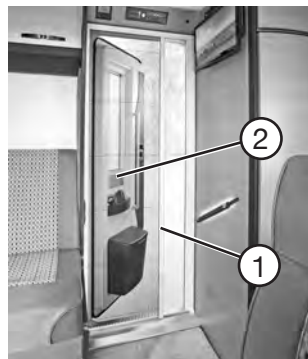
- Pull the handle ② of the door closed until it locks into place.

Locking

- Press the handle ① into the recess (Fig. 1).



This allows a door which has been locked from the outside to be opened from the inside.



Example of pleated insect screen in the Optima model

Pleated insect screen ①

- Carefully open and close the insect screen plissé by guiding it along the guide rail.



The **pleated insect screen** must be closed first before closing the entrance door!

Entrance door pleated insect screen ②

- Close the guide rail slowly until it goes no further.



Garage (storage locker) flap

Garage flap/ Stowage flap (model-specific)

Opening

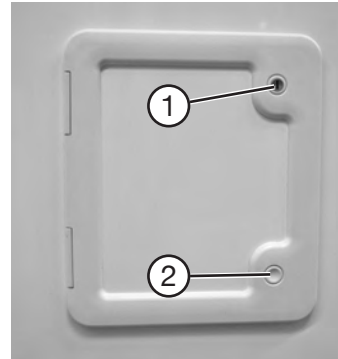
- Unlatch both locks with the key. The handles will be slightly projected.
- Turn the handle to the left.
- Swing the flap up.

Closing

- Swing the flap shut.
- Turn the handle to the right until the flap is pulled into the seal.
- Latch both locks with the key and push the handles in until they click into place.



The maximum load for the external storage locker is 150 kg.



Porta Potti flap

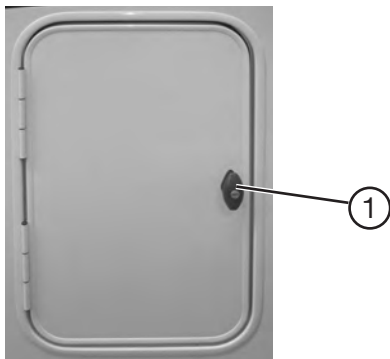
Toilet flap

Opening

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

Closing

- Press flap until it locks into place.
- Use key to lock flap ①.



Gas bottle container flap

Gas-bottle Container Flap



The ventilation grill of the gas-bottle container flap must not be closed or covered.

Opening

- Use the key to unlock the lock ①; the handle will jump out a little bit.
- Turn the handle to the left to open; this unlocks the flap, which can then be swung open

Closing

- Turn the handle to the right; this pulls the flap into the seal.
- Place the key in the lock, push the handle in and lock the flap.

Hobby



Locking device for doors and flaps

Locking devices for doors and flaps

The entrance door as well as some of the external flaps can be fastened using the locks on the outside wall of the mobile home.

To lock

- Open the flap all the way.
- Press the nose fastened to the flap into the counterpart on the outside wall of the mobile home. Take care to ensure that it clicks firmly into place.

To unlock

- Pull the nose out of the counterpart.



Doors and flaps must always be closed before driving.



Cover flap

Cover flap

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



the fresh water filter neck



external socket and antenna terminal* in the outer tent



external gas socket*



CEE external socket

Opening

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

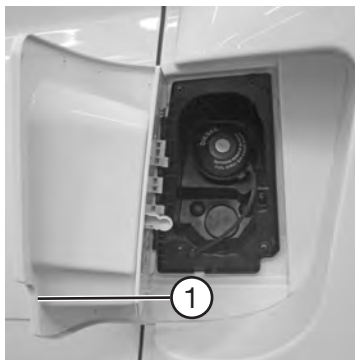
Closing

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

Please refer to the appropriate chapters on water, gas and electricity for information on handling the individual components.



When driving, the cover flaps must always be firmly shut.
Never fill diesel into the fresh water tank.



Petrol cap

Petrol filler neck

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

Opening

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

Closing

- Push the flap until it locks.



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



Extended entrance step

5.3 Entrance step

The motor homes are equipped with an electrically extendable entrance step ①.



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



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



Switch for step tread

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.



Key assignments may vary, depending on the model.

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.



Levelling supports, folded in

5.4 Levelling supports *

The levelling supports are located in the rear area by the frame extension.

Swinging out the levelling supports

- Place the crank on the hexagon head ① .
- Turn the crank to move the support to a vertical position.
- If necessary, secure the foot ② to prevent it from sinking into the ground and place it on a firm base.
- If the levelling support is in a vertical position, the support foot will extend telescopically.
- Use the crank to level the levelling supports until the vehicle stands level.



Levelling supports, folded out

Retracting levelling supports

- Use crank to release levelling supports.
- Continue to crank smoothly until the levelling support is once again in its initial horizontal position.



- Do not use the levelling supports as a car jack. Their sole purpose is to stabilise the motor home when it is parked.
- Always load the levelling supports evenly (max. 500 kg per support).
- Always retract the levelling supports and secure them before driving.
- Clean the levelling supports regularly and grease them slightly.



The telescopically adjustable foot may only be extended as far as the yellow marking!



Rear ladder

5.5 Rear ladder *

The rear ladder is used to ascend to the roof of the mobile home, e.g. to load the roof rail.

A lock on the lower part of the rear ladder prevents it from being unfolded unintentionally.

To unfold

- Turn the key 90° clockwise. The locking pin will project slightly.
- Unfold the ladder until the feet are securely on the ground.
- Turn the key back and remove it.



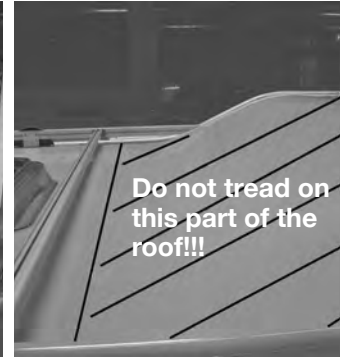
Rear ladder, folded out

To fold

- Fold the ladder up.
- Turn the key 90° to the right.
- Press the locking pin; this locks the ladder into place.
- Turn the key back to an upright position and pull it out.



Curved edges of roof



The following applies for the roof load

The roof has not been made for concentrated loads. Place a large-scale cover over the area you wish to step on before standing on the roof. Materials with a soft and smooth surface (such as a large piece of styrofoam) are suitable for this purpose.

- Do not step too close to the roof bonnets or the air conditioning systems on the roof (stay at least 30 cm away).
- Do not step on the rounded areas at the front and rear ends of the motor home.



The maximum total load for the roof rail is 80 kg!



Be careful when standing on the roof. There is a great danger that you will slip if the roof is wet or icy.

Before driving, the read ladder must be folded up and locked.



Roof rail

Roof rail

The following applies when loading the roof rail:

- Only store light items of luggage on the roof.
- Lash the roof load securely and ensure that it cannot slip or fall off.
- Do not overload the roof! The heavier the roof load, the worse the vehicle's performance.



The maximum total load for the roof rail is 50 kg.

- Observe the maximum permissible axle loads when loading.
- Add the measurements of the roof load to the height of the vehicle.
- Place a note with the overall height in a visible position in the driver's cabin to avoid having to calculate it when passing under bridges or through archways.



Only transport roof loads using an additional, suitable roof rack.



Bicycle carrier, loaded

5.6 Bicycle carrier *



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

The motor home'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. Even when unloaded and folded up the carrier must be secured using the clips provided.



Bicycle carrier, secured

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

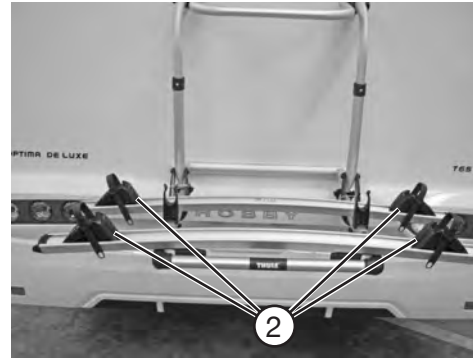


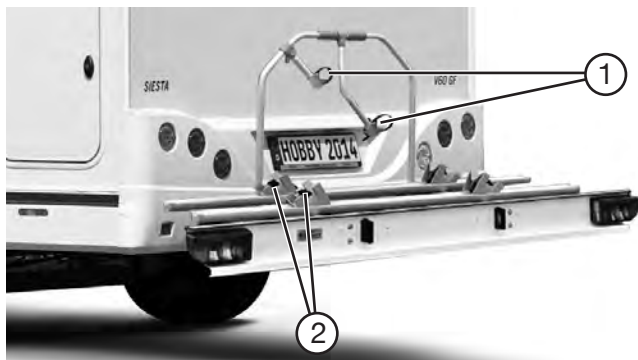
The maximum permissible loads for bicycle carriers are 60 kg.

**Clipse**

If the rear-mounted bicycle carrier is not required, it must be folded up and secured. To do this, use the clip ① and the separate fastenings included 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.

**Derivatives**



eBike carrier

5.7 Velo eBike Carrier *

The driver of the vehicle is responsible for ensuring that the load has been fastened securely. This means that the bicycles must be doubly secured on the carrier.

To secure

- The clip ① must be attached to the bicycle as high as possible. We recommend that you use, for example, the saddle pillar or the steering rod.
- The wheels are strapped to the lower attachments ②. A tension belt can be used as an additional means of securing this load.



- Always maintain the permissible load-carrying capacity of the carrier (75 kg) and never overload it.
- If the rear carrier is fully loaded, and depending on how much the load juts out over it, the load on the rear axle will be increased while it will be decreased on the front axle. This can change the driving performance and steering and brake response of the vehicle.
- The carrier reduces the rear ramp angle of the vehicle. Therefore, the vehicle may touch the ground when driving over uneven terrain.
- The rear licence plate must be centrally mounted between the carrier's licence plate lights.
- Do not use a high-pressure cleaner to clean the carrier as this may damage the surface protection.
- Use only original spare parts and accessories that have been certified by SAWIKO in order to maintain your rights from the guarantee.
- Simultaneous use of the eBike carrier and the tow-bar is not permitted. Only one system may be mounted at a time: either the eBike carrier or the tow-bar.



Ensure that the electric connection via the 13-pole plug is not broken when the eBike carrier is folded up; otherwise, the illumination devices will not function properly.

For further information, please refer to the manufacturer's enclosed operating instructions and store them together with the documents for this vehicle. These operating instructions are an important document that enable you to take the carrier with you. Should an inspection be carried out, this document must be shown to the authorities upon request.



Awning

5.8 Sun awning *

As option, your motor home can be fitted with an awning attached to the roof. In models with an alcove bed, the awning is attached to the side wall.



- 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 integrated struts when extended.
- The awning must always be completely retracted and secured before driving.

Extending

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

Retracting

- Insert the hook on the crank 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.
- Retract the telescopic rods, fold them up and secure them.
- Only then should you roll in the awning completely and secure it.
- Remove the crank and store it in the vehicle.

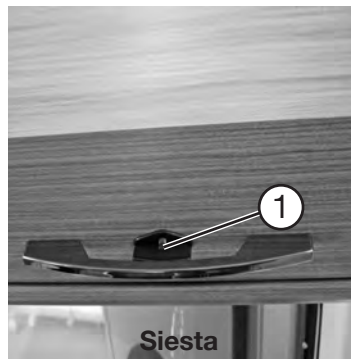


If the canvas is slack when extended, retract the awning until the canvas is tightly stretched again.

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

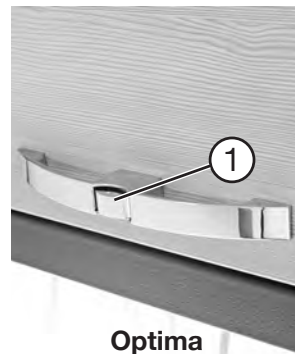
Chapter 6: Interior Structure

6.1 Opening and closing doors, flaps and drawers



Siesta

Wall cabinets in the kitchen



Optima

Furniture doors with a locking mechanism

Stowage and wall cabinets

Opening

- Press the pushbutton ① (Siesta: from the top) to unlock the flap.
- Pull on the handle until the flap opens.

Closing

- Use the handle to press the flap shut until you can feel it close and lock.



Store only light objects in the upper stowage cabinets.



Mirror cabinets

To open

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

To close

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



Magnetic locks

Furniture doors with magnetic safety catches or press locks

Opening

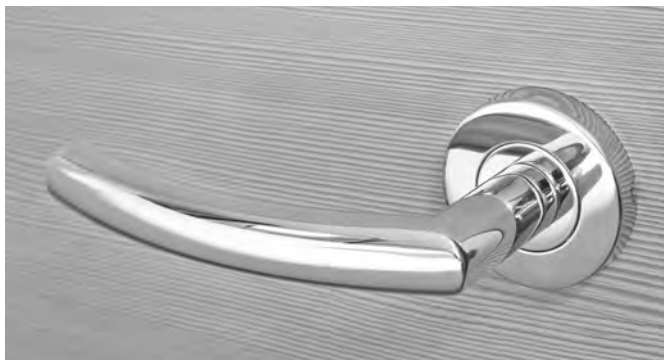
- Pull on the handle and swing the door open.

Schließen

- Use the handle to press the door shut until you can feel it lock into place.



Simple furniture doors may be held closed by a magnet. Therefore, only light-weight objects should be stored in these cupboards.

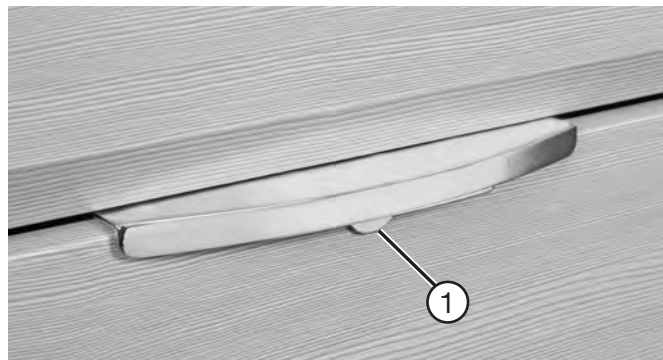


Washroom door handle

Furniture doors with handle

Bath room door

- Push the handle to open and shut the door.



Pressure lock on kitchen drawer

Drawers with a pressure lock

To open

- Press the bottom of the pushbutton ① to unlock the drawer.
- Pull on the handle until the pull-out opens.

To close

- Use the handle to press the flap shut until you can feel it lock into place.

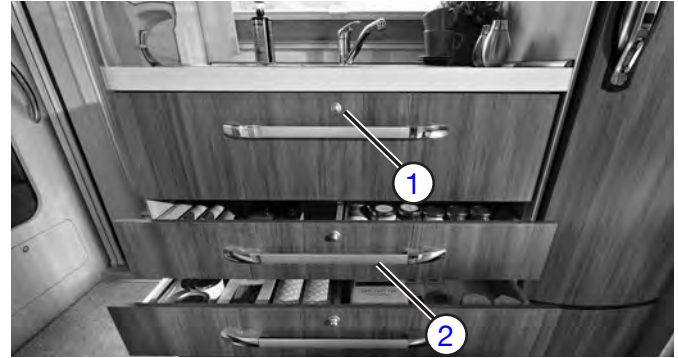


Olive-shaped handle

Furniture doors with turning knob

Clothes cupboard (model-specific)

- Turn the knob to open or shut the door.



Pushlock in connection with kitchen drawer

Kitchen drawer/cupboard with pushlock

Each individual drawer is secured by a separate pushlock

①.

To open

- Press the push-lock ① until the knob jumps up.
- Pull on the handle ② until the drawer slides out or the cupboard door opens.

To close

- Push the handle ② to shut the drawer or the door of the cupboard.
- Press the push-lock ① until the knob snaps into place and the drawer is securely shut.



Please observe the maximum load of 15 kg per drawer.



Sliding door in washroom

Sliding doors**Opening**

- Grasp the handle/frame of the sliding doors and push them open.

Closing

- Grasp the handle/frame of the door and push it closed until it clicks into place.



Extendable flat screen

6.2 TV mount* (included in Deluxe package)

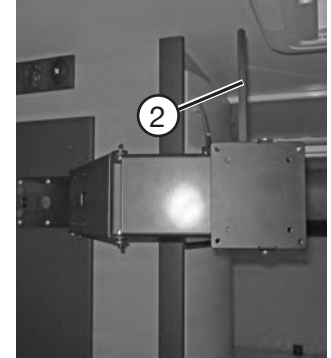
230 V power sockets and an aerial socket for the TV and/or receiver are located directly adjacent to the holder.

Extendable 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.



TV mount, locked



TV mount, folded out

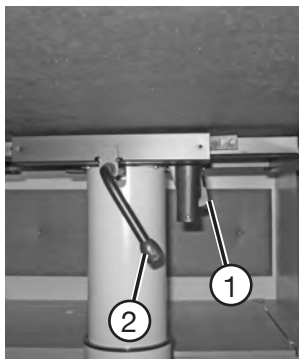
Mount for flat screen TV

- To unlock, push the metal rail ② to the right. The lock will be released and the TV mount can be folded out.
- To retract the mount, push it back to its original position until it is noticeably locked into place



Lock the media unit or TV holder before driving.

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



Luxury Living Room Table



6.3 Tables

Luxury Living Room Table *

The luxury living room table can be lowered as well as moved.

To shift

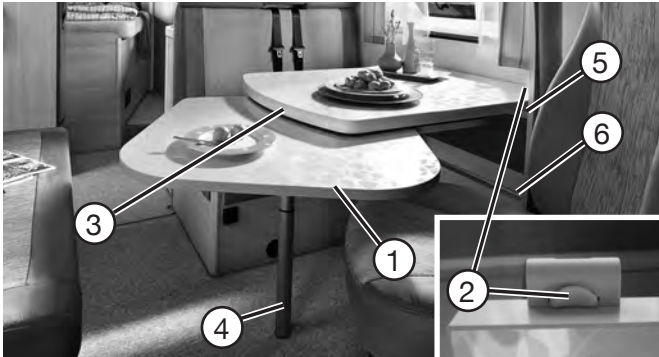
- Release the lever ① to enable you to move the table to any position on the pillar.
- Push the lever ① back into place to lock the table into the desired position.

To lower

- Pull the lever ② all the way to the other side to unlock the table.
- Use both hands to push the table top down.
- Pull the lever ② back into its original position to lock the table into the desired position.



To lower the table all the way to the floor, the table top must be positioned in such a way that it cannot rest on the seat chests.



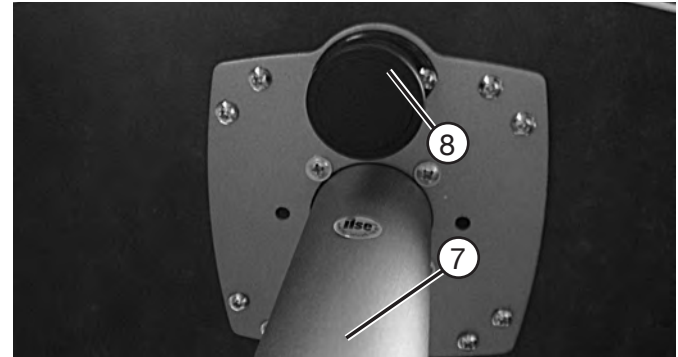
Hanging table with pivotable table top

Hanging table

When lowered, the hanging table can be used as a base frame for the bed.

To lower

- Fully retract the lower, pivotable table top ① until it locks into place by itself.
- Press the lock ② down
- Raise the front end of the table top ③ by approx. 30°.
- Pull down the lower section of the table foot ④ and remove it.
- Pull the table top out of the upper wall bracket ⑤.
- Hook the table top into the lower wall bracket ⑥. The lock must move up to lock into place.



Locking pin underneath the table top

- Place the shortened supporting leg ⑦ at the front edge of the table top on the floor.

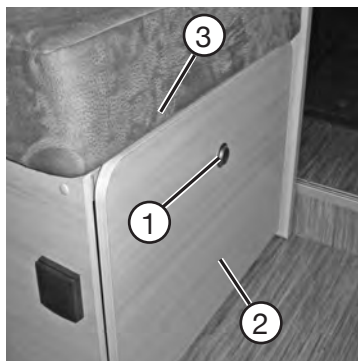
To swivel out

- Pull the locking pin ⑧.
- Swivel the lower table top ① to the desired position.

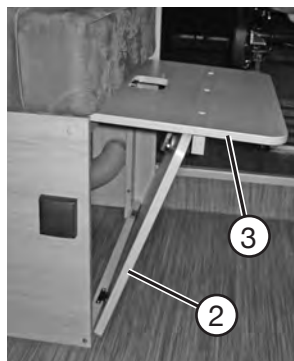


The A65 GM and A70 GM models do not have a pivotable table top.

In models with alcove beds, the hanging table cannot be lowered, because there is no need to convert it into a bed as you have the alcove bed.



Widening the seating bench

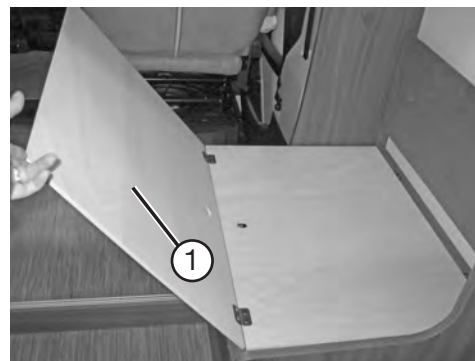


6.4 Seating arrangements and sleeping areas

The seating arrangements can be converted to beds.

Conversion (only alcove models)

- Remove the seat and back cushions.
- Undo the lock ① on the bed expansion.
- Place the outer plank ② of the bed expansion on the floor.
- Raise the inner plank ③ approx. 15° above the horizontal position.
- Wedge the outer plank ② in a 45° angle (approx.) beneath the inner plank ③ to support it.
- Place the cushions on the bed according to the following diagrams.



Transverse Seat

Converting the Transverse Seat (only Optima)

In order to use the additional bed in the rear, the transverse seat must be converted.

Conversion

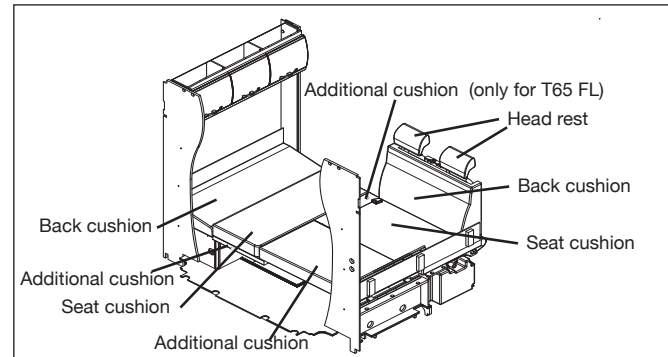
- Remove the seat and back cushions.
- Lower the table (to do this, the lower table top must be swung out).
- Fold the cushion cover ① forward by 180° and place it on the table.

6.5 Polsterumbau



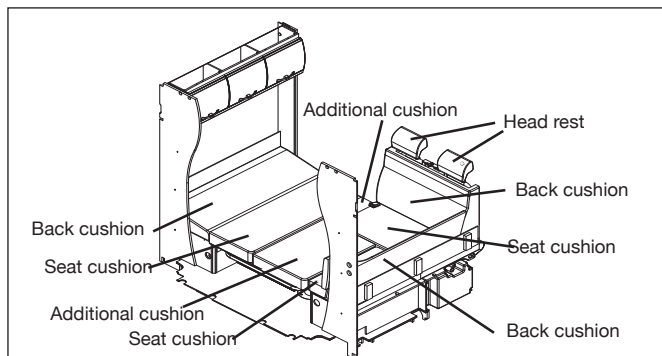
The A55 GS and V60 GF models cannot be converted as the seating arrangement has not been constructed to enable this.

None of the motor homes with alcove beds can be converted, because there is not enough free space when the alcove bed has been lowered.



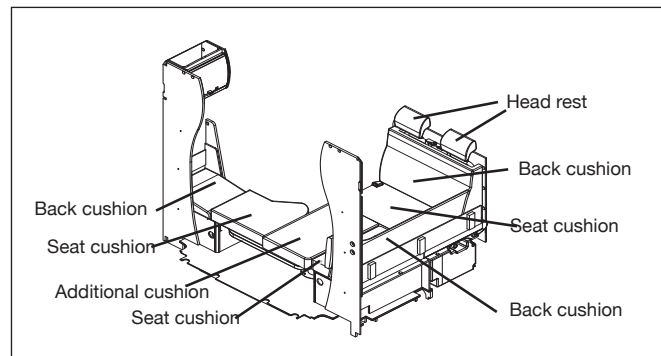
Rearranging the cushions in the Optima model (example)

1. Hook the table into the lower guiding rail (see 6.3 Tables).
2. Turn the extendable table shelf all the way to the right.
3. **(T65 FL only)** Position the additional plywood panel parallel to the table and above the seating benches. Use the additional mounting foot to support the panel in the middle. (To carry out Step 3, the seat cushion must be raised slightly.)
4. Place the additional cushion on the extendable table shelf.
5. **(not for T65 FL)** Fold over the plywood lid of the seating bench onto the additional cushion.
6. Place the additional cushion on the table top.
7. Push the seating cushion forward.
8. Fold over the back cushion.
9. **(T65 FL only)** Place the additional cushion in the empty space.



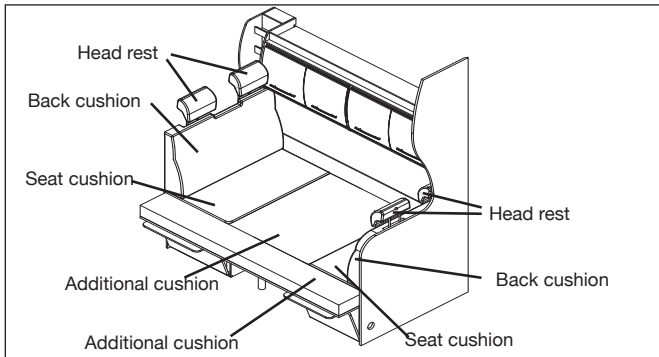
Rearranging the cushions in the T65 FL Optima model with the optional extra of an L-shaped seating arrangement + luxury living room table

1. Lower the table to the lower position (see 6.3 Tables).
2. Position the additional plywood panel parallel to the table and above the seating benches. Use the additional mounting foot to support the panel in the middle. (To carry out Step 2, the seat cushion must be raised slightly.)
3. Push the seating cushion forward.
4. Fold over the back cushion.
5. Place the additional cushion in the empty space.



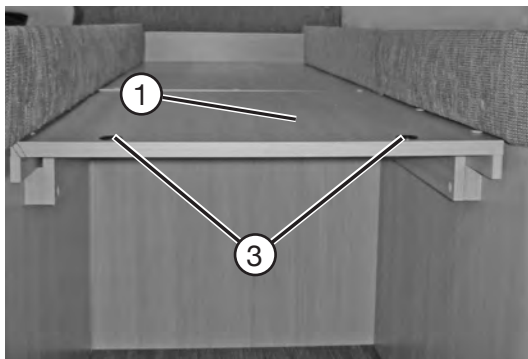
Rearranging the cushions in the T65 GE Optima model with the optional extra of an L-shaped seating arrangement + luxury living room table

1. Lower the table to the lower position (see 6.3 Tables).
2. Push the seating cushion forward.
3. Fold over the back cushion.
4. Place the additional cushion in the empty space.



Rearranging the cushions in the Siesta model

1. Hook the table into the lower guiding rail (see 6.3 Tables).
2. Fold up the side elements of the seating benches.
3. Place the plywood panel over the side elements. Use the additional mounting foot to support the panel in the middle.
4. Place the additional cushion on the table top.
5. Place the additional cushion on the plywood panel.



Extension plank for widening the beds

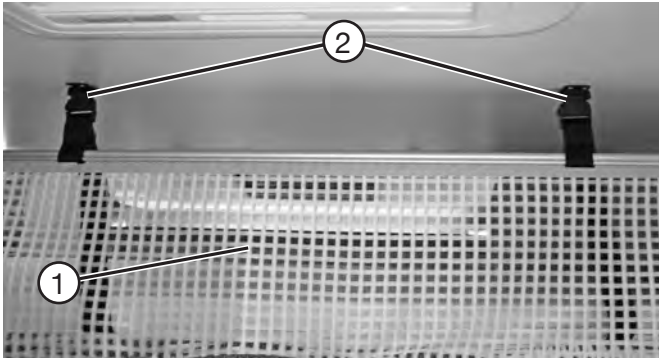
Widening the Beds *

In models with individual beds above the garage, the two beds can be joined by widening the beds.

- Insert the extension plank ① into the rails.
- Then insert the mattress ② provided for this purpose in the space for widening the beds.
- Hang the ladder in the designated retaining holes ③ .
The ladder is located in the external storage locker when the vehicle is delivered.



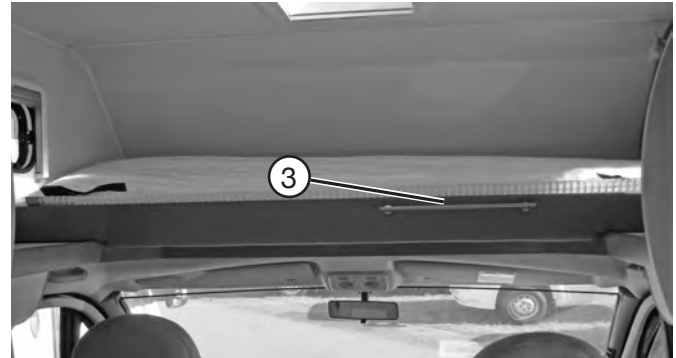
Widening the beds



Safety net

Alcoves/queen-size bed, crossways/Alcove bed

Parents are responsible for ensuring that small children do not fall out of upper berths. If there are small children in the alcove, elevated queen-sized beds above the garage or on the alcove beds, the safety nets ① must be pulled up and fitted in the brackets ② as a protection against falling out.



Alcoves pushed together

The floor of the alcove can be pushed together for a more comfortable sitting position. Use the mounted handle ③ to push it forwards.



If you have put small children in the upper berths, secure them against the danger of falling out!



Retracted step

Step for bed at rear end of vehicle (model-specific)

Some beds at the rear end of the mobile home can be accessed by means of an extendable step.

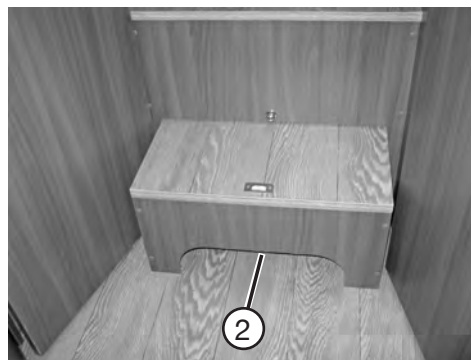
The step is safeguarded by means of a pushlock (1).

Extending the step

- Press the pushlock ① and the knob will pop out.
- Put your hand in the notch ② and pull the step evenly and carefully until it is all the way out.



Before stepping on the step, ensure that it stands securely on the floor and is anchored in the panelling.



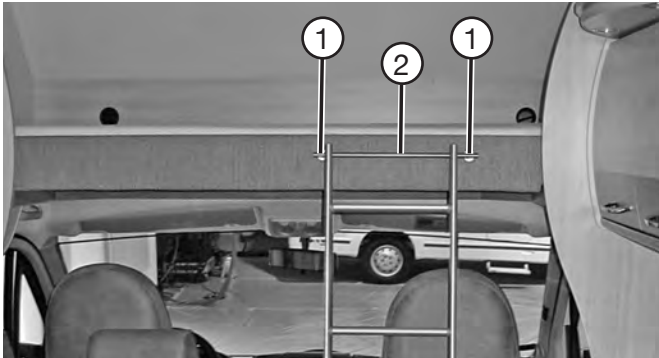
Extended step

Retracting the step

- Push the step slowly and evenly all the way back into the panelling.
- Press the pushlock ① to secure the step.



Before driving, push the step into the panelling and secure it by means of the pushlock.



Ladder fastening

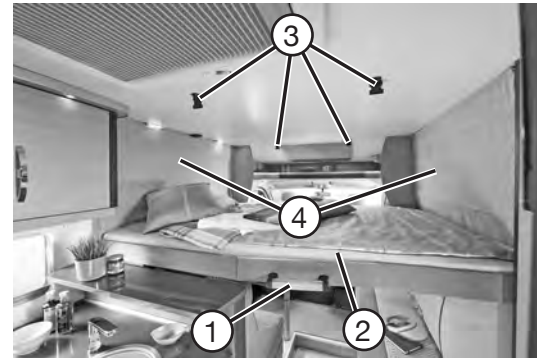
Access ladder

Ladders are used to access alcoves, upper bunk beds and beds at the rear end of the motor home (model-specific).

- Hook the upper end of the ladder firmly into the handle provided or behind the metal rail (model-specific).
- Place the ladder firmly on the floor.



Ensure that the ladder cannot slip.



Alcove bed, lowered

Alcove Bed, Mechanical (model-specific)

To operate

- If necessary, remove the backs and head rests from the seating bench.
- Switch off the lighting underneath the alcove bed.
- Release the lock for the alcove bed by pressing both parts of the handle ① together.
- Continue to press both parts of the handle together as you pull the alcove bed down as far as it will go.
- Hand the ladder ② in the handle.
- When sleeping, always clip the netting that protects you from falling out ③ into place (located underneath the mattress).

- Before driving, return the alcove bed to its original upright position and lock it into place.



Maximum load for the alcove bed: 200 kg

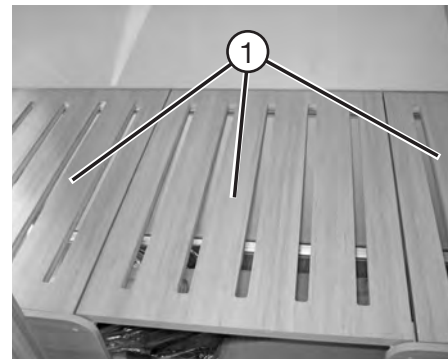


When returning the alcove bed to its storage position, ensure that the fabric facing on the sides ④ does not slip out and behind the alcove bed, where it would get caught in the mechanical system.

When the mobile home is not in use, remove the mattress from the alcove bed to ensure there is enough air circulation in this area of the vehicle.



Children's beds



Children's beds

Windows next to children's beds can only be opened slightly to effectively prevent children from falling out.

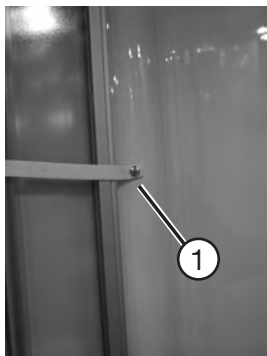
In the A55 GS model, the lower bed may be removed, enabling this space to be used as an external storage locker.

- Fold up the mattress and stow it away.
- Then remove the movable lower parts of the bed ① and stow them securely.

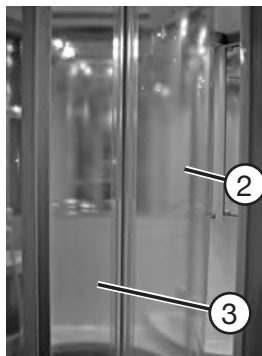


Be careful when using the upper bed for small children, as there is a danger that they may fall out. Never leave small children unattended in the motorhome.

The permissible maximum load for the upper bunk bed is 75 kg.



Fixed shower doors



While driving, the fixed shower doors must be locked into their original position.

Ensure that the shower door does not cover the hot air outlet nozzle when the heating is on.

6.6 Washroom

Fixed shower doors ^{*}(included in Deluxe package)

As an option, the wash room can be equipped with a fixed shower door instead of a shower curtain.

Preparation

- Release the locks on the rounded doors or the folding door ①.
- Connect the rounded doors ② and the folding door ③ (if applicable) in order to create a separate shower cabinet.



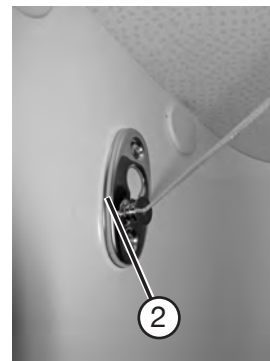
Clothesline

Clothesline (in the Optima model)

The Optima series is fitted with a clothesline in the washroom.



Arrester

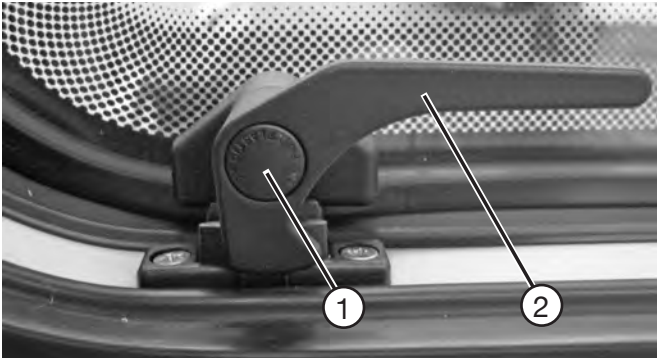


Counterpart

- To extend the clothesline, pull out the arrester ① and hook it into the counterpart ② on the opposite wall by threading it from above through the extended opening towards the floor.
- To retract, release the arrester ① from the counterpart ② and slowly guide it back to its original position.



When driving, do not hang anything on the clothesline. We recommend leaving it in its original position whenever driving.
The maximum permissible load for the clothesline is 4 kg.



Window latch

6.7 Windows



All of the window latches ① on the long bottom edge of the window have locking knobs. To open these window latches ①, press the locking knobs. Window latches located on the vertical edge of the window do not have locking knobs.

Knockout windows with locking hooks

Opening

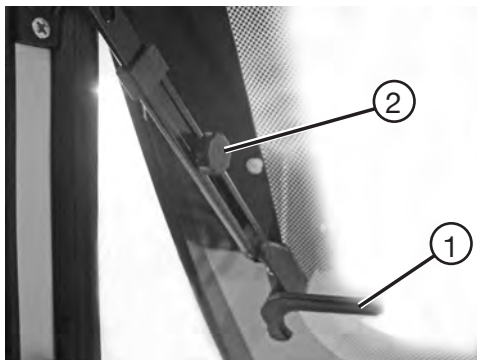
- Turn the latch ② by 90°.
- Press the window latch outwards until you hear it click. The window will automatically remain in this position. The width of the opening is adjustable in several stages.

Closing

- Raise the window slightly so that the hook unlocks.
- Close the window.
- Turn the latch ② to the original position so that it clasps behind the brackets and pull the pane into the seal.



As added protection against falling out, the windows by the children's beds can only be opened slightly.



Fully adjustable window stays

Fully adjustable window stays

To open

- 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.

To close

- Loosen the turn screw ② to allow you to 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.



Windows must be shut while driving. Never use de-icing spray or an ice scraper for the windows in the motor home.



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



Sunshade/insect screen

Sunshade/insect screen

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

Closing

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

Opening

- Push the shade up slowly and evenly.

To combine

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



To avoid consequential damage, leave the shades open when the motor home is not in use.



Skylight Optima

Skylight *

Roof windows have integrated plissés that can be pulled to close them (see also 6.9 Sunshade and insect screens).



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.

Opening

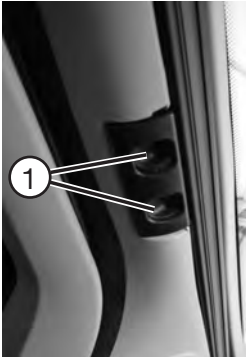
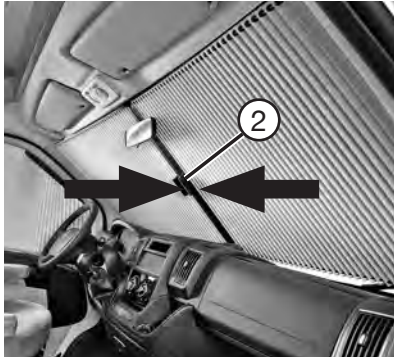
- Turn the latch by 90°.
- Press the window latch outwards until you hear it click. The window will automatically remain in this position. The width of the opening is adjustable in several stages.

Closing

- Raise the window slightly so that the hook unlocks.
- Close the window.
- Turn the latch to the original position so that it clasps behind the brackets and pull the pane into the seal.



The roof window must be shut while driving.

**Front system**

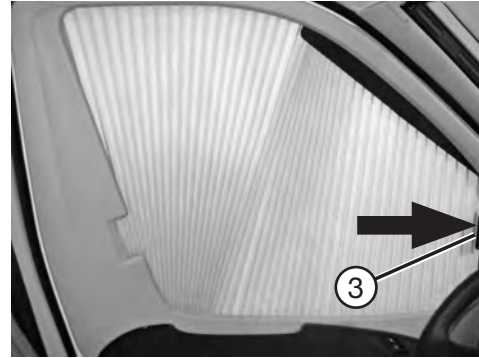
6.8 Dimming system for driver's cabin *

The dimming shades may only be drawn when the vehicle is standing and the motor has been turned off. Before starting your drive, you must fold up the entire system and lock it.

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



The dimming system may never be used as a sunshade or closed while driving.

**Side system**

Front system

- Press the locks ① together to open the locking mechanism.
- Press the clasp ② together in the middle. The magnetic lock will automatically lock.

Side system

- Press the locks ① together to open the locking mechanism.
- Draw the clasp ③ across to the rabbet. The magnetic lock will automatically lock.

6.9 Skylight

Safety instructions



- Never open the skylight in strong winds/rain/hail, etc. or if the temperature outside is below -20°C!
- Do not use force to open the roof skylight when covered by ice or snow as this could break the hinges and opening mechanism.
- 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 bolt the skylight before driving. Open the insect screen and pleated material (resting position).
- If the sunlight is very strong, pull the sunshade only 3/4 closed, otherwise there is a danger of heat build-up.

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

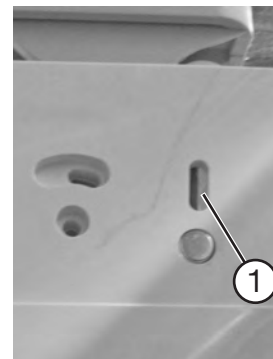


Large roof bonnet

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



Large roof bonnet



Control pin

Large roof bonnet

Opening

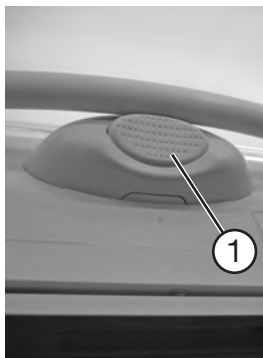
- Reach into the opening of the crank bag and fold the crank to the user position by pulling it out. Turn the crank clockwise to open the light to the desired position. When you have reached the maximum opening angle you will feel the resistance.

Closing

- Turn the crank counter-clockwise until the light is closed and you feel the resistance. The control pin ① is visible when the skylight is shut. Then turn the crank only so far until you can fold it into the crank bag. To be locked securely, the crank must be folded into the crank bag.



Small roof bonnet



Locking knob

Insect screens and shades (plissés)

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

Small roof bonnet

Opening

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

Closing

- Guide the adjusting lever along the guide rail and close the roof bonnet. The bonnet will lock when the lever hooks into place behind the locking knob ①.



The maximum speed is 130 km/h, because noise may be generated or damage caused, depending on the superstructure or place of installation.



Seating arrangement

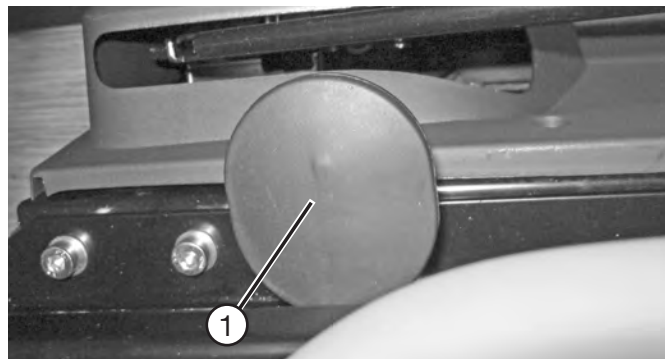
6.10 Seats in the driver's cabin



All of the motor homes (except for A65 GM / A70 GM) have pivoting driver's and passenger's seats, which can be used to extend the number of seats available in the superstructure. To operate these pivoting seats, please refer to the operating instructions for the base vehicle.



- Before driving turn all swivelling 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 swivel them.
- When the vehicle is stationary: when swivelling 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 outer edge of the seats in the driver's cab.

Swivelling seats

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



Movable passenger seat

Movable passenger seat*

In the A55 GS model, the passenger seat can be turned and, optionally, pushed sideways toward the centre.



Lever for changing the position of the passenger seat

Changing the position

- Pull the lever ① up and hold it tight.
- Push the seat toward the centre of the vehicle.
- Turn the seat to the desired position and release the lever ①.



While driving, the driver's seat must be in the original position; the lock must click noticeably when the seat is returned to this position.



Seating bench in the superstructure

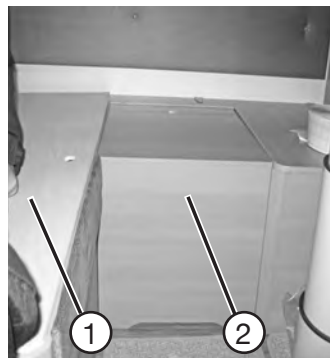
6.11 Construction of the seats

Cushion fastenings

Seat cushions are held in place by an anti-slip mat. The back cushions are fastened with Velcro.



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



Converting the L-shaped seating arrangement

Converting the L-shaped seating arrangement *

To use the outer seats in models with an L-shaped seating arrangement (only Optima), it must be converted before you drive.

- Remove the seat and back cushions.
- Fold the lid ① of the seating bench up.
- Pull the entire seating bench ② up and out.
- Lower the lid of the seating bench, replace the seat and back cushions.



Seatbelts

6.12 Seatbelts in the motor home

The seating arrangements are fitted with safety belts.



Please note the overview of the seating arrangements for your vehicle. Certain seats may not be used while driving!

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

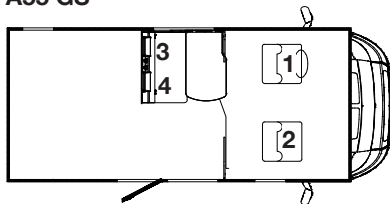
- Press the button on the lock of the seatbelt to unlock the tongue.



- 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.

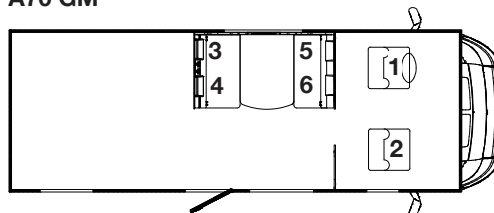
6.13 Overview of the seating arrangements

A55 GS



Seats 1 - 4: may be used while driving.

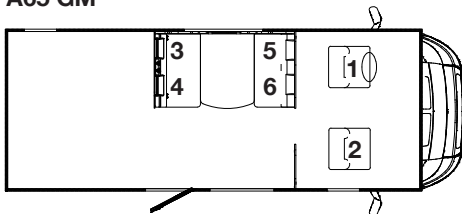
A70 GM



Seats 1 - 5: may be used while driving

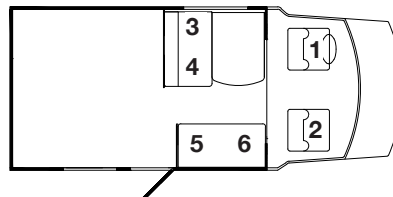
Seat 6: may be used while driving if the permissible
maximum weight = 3650kg / 3850kg / 4250kg / 4400kg

A65 GM



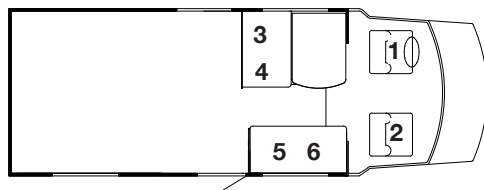
Seats 1 - 6: may be used while driving.

T60 H



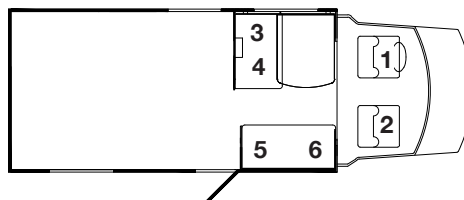
Seats 1 - 4: may be used while driving.

Seats 5 - 6: must not be used while driving.

T65 FL

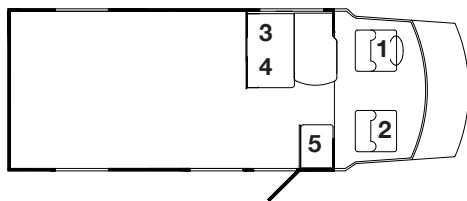
Seats 1 - 4: may be used while driving.

Seats 5 - 6: must not be used while driving.

T65 HFL

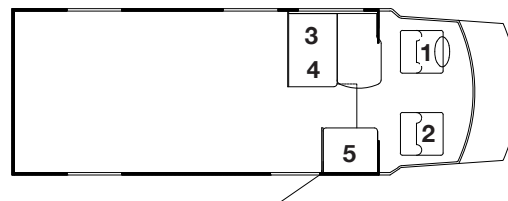
Seats 1 - 4: may be used while driving.

Seats 5 - 6: must not be used while driving.

T65 GE

Seats 1 - 4: may be used while driving.

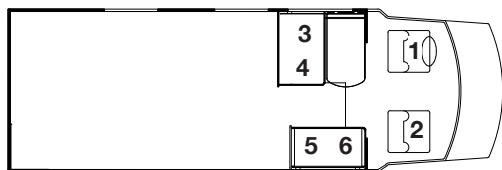
Seat 5: must not be used while driving.

T70 GE

Seats 1 - 4: may be used while driving.

Seat 5: must not be used while driving.

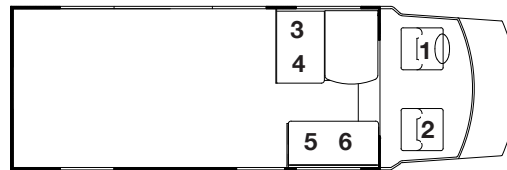
T70 E



Seats 1 - 4: may be used while driving.

Seats 5 - 6: must not be used while driving.

T75 HGE

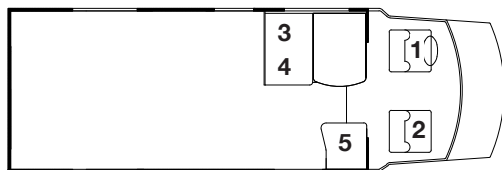


Seats 1 - 3: may be used while driving.

Seat 4: may be used while driving if the permissible
maximum weight = 3650kg / 3850kg / 4250kg / 4400kg

Seats 5 - 6: must not be used while driving.

T70 HQ



Seats 1 - 3: may be used while driving.

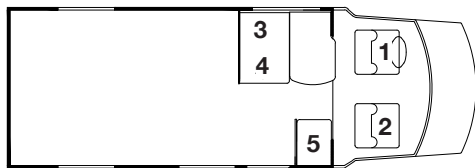
Seat 4: may be used while driving if the permissible
maximum weight = 3650kg / 3850kg / 4250kg / 4400kg

Seats 5 : must not be used while driving.

V60 GF



Seats 1 - 4: may be used while driving.

V65 GE

Seats 1 - 4: may be used while driving.

Seat 5: must not be used while driving.

Chapter 7: Electrical Installations

7.1 Safety instructions

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



- Do not remove the signs on electrical components giving safety instructions or danger warnings.
- The installation spaces around electrical equipment such as distribution fuse boards, electric power supply, etc., may not be used as additional storage spaces.
- Smoking and naked flame are forbidden when checking electrical equipment.
- Only authorised specialists may work on the electrical system.
- Inexpert 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

- Any changes to the electrical installations may only be carried out by a professional electrician.
- Disconnect the battery and switch off the 230V mains before carrying out any maintenance work.

Batteries

- Please observe the battery manufacturer's operating instructions.
- The acid in the battery is poisonous and corrosive. Avoid contact with eyes and skin.
- The completely discharged battery must be recharged for at least 24 hours. The battery may be damaged if it has been discharged for more than 8 weeks.
- Avoid total discharge since this significantly reduces the performance capacity and service life of the batteries.
- 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.

- Unclamp the battery circuit breaker if the ancillary battery is not being used for a longer period of time (4 weeks or more). The standby current used continuously by some electrical devices discharges the ancillary battery. Even if the battery circuit breaker is interrupted, the battery can still be charged by the battery charger (conservation charging).
- Should the consumer battery be removed, isolate the plus pole (to prevent short circuits when turning on the motor).

Battery charger

- The charger's capacity is 360 W.
- The charger functions in accordance with IU0U1 charging technology.
- In the case of misuse the guarantee and manufacturer's liability will no longer apply.
- The air vents in the FIAT seat console panel 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 avoid incrustations, particularly in the waste water tank, never let the water in the tanks stand for too long.
- Flush the tanks regularly.

230V automatic circuit breaker with an earth leakage circuit breaker

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

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

Fuses

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

TFT-Controlpanel



Hauptschalterfunktion

- Once the system is in operation, press the main switch briefly to turn all of the lights and the water supply off. All 12V steady electrical devices (e.g. refrigerator control, 12V sockets, USB charging sockets and the heating) will remain activated.



If the vehicle's motor is running, the refrigerator will operate automatically on 12V, i.e. it is not necessary to press the main switch. In this case, the selector switch for the refrigerator must be set to 12V operation. All other 12V electrical devices will only operate on the ancillary battery if the main switch has been activated.



Lighting in the seating arrangement



Ceiling Lamp

- Briefly press the key to switch each lamp 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. If the system's power supply is interrupted, the wall light will shine full strength the first time you switch it on.



In campers with two ceiling lights, one light can only be switched on separately directly on the light.

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



Key Memory

- This key is used to save and recall the state of individual lights. Press briefly on this key to recall the last saved state of all switchable 12 V lights. Press longer on this key to save the lighting state of a lamp. This key is not used to save the state of the 230 V electrical devices (e.g. hot-air heating).



Entrance light

- Press this key to switch the entrance light on and off. It is not possible to switch this light on when the motor is running. The light will turn off automatically when the motor is switched on.



The entrance light must be switched off when the motor home is on the road.



Kitchen light

- Briefly press the key to switch the kitchen lamp on and off.



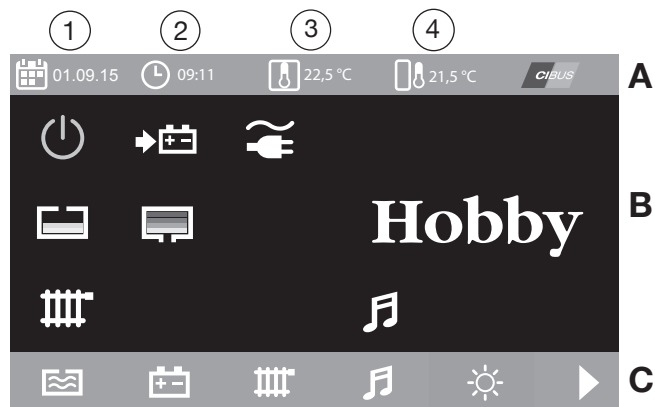
Lighting atmosphere

- Briefly press the key to switch on the indirect light.



This key is not assigned in the Siesta series.

Main menu on the TFT control panel



Fixed header A

Permanently displays:

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

Main display B

The current status and values of the available components can be viewed at predefined places.

Stand-by Mode

- The display dims slightly if no function has been carried out within a period of one minute.
- In the newer update versions, the display switches itself off and is black if no function has been carried out within a period of 10 minutes.



On/Off switch for power supply

If this icon is shown in green, the light control and water pump are activated. If the icon is white, these two components have been deactivated.



230 Volt

Shows that the motorhome is connected to the mains.



Generator used for charging

The motor has been switched on; the ancillary and starter batteries are connected in parallel.



Warning: motor and mains connection

This warning will appear 3 times and must be acknowledged. The warning will not appear again when the defect has been fixed.



Battery being charged



Battery being discharged



**Truma heating (series) or Alde hot water heating*
(depending on how mobile home is equipped)**

red = malfunction, green = in operation



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



Radio

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



WiFi*

green = connection activated

yellow = system is starting up or shutting down



AUX* Ice-Ex (only in optional extra DuoControl)

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



Fresh Water Tank

red = empty



Waste water tank

red = full



Electric waste water tank heating*

(Alde hot water heating system function)

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



Battery management

**Air-conditioning system***

green = in operation

**Cooling (air-conditioning function)****Heating (air-conditioning function)****Automatic (air-conditioning function)****Air circulation (air-conditioning function)****Soft key menu bar C**

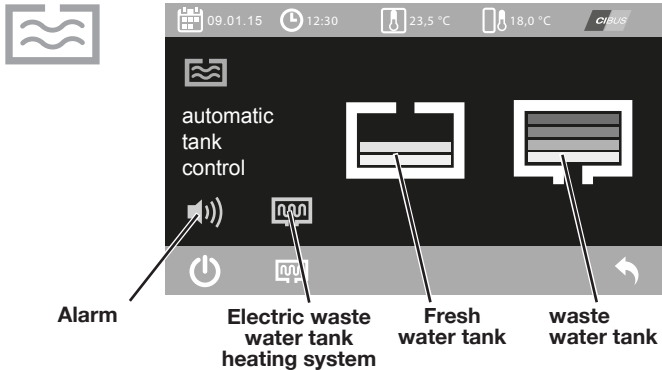
This is used to access the individual menus of the components.

Soft keys

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

Control knob

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



Fresh and waste water tanks

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

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

Electric waste water tank heating system (Alde hot water heating system function)

If the mobile home has been equipped with an Alde hot water heating system*, the waste water tank will be heated electrically. The heating function is activated and deactivated by means of the soft key.

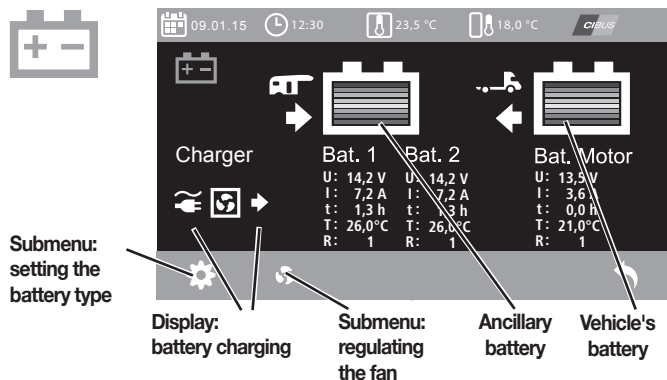
This icon is displayed in green in the submenu when the function is activated. The heating system will then begin to operate automatically when:

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



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

This function is only visible when the mobile home has been equipped with an Alde hot water heating system.



Battery management

The current status of the auxiliary battery is displayed in the battery menu (self-sufficient package).

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

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

“U” indicates the current charging voltage, “I” the current charging current and the remaining time until the battery is discharged is displayed in hours. The value “T” indicates the temperature of the battery; this must not exceed 50° C. A warning message will be sent if the temperature exceeds 50° C and the battery will be shown in red in the main menu on the control panel.



If the battery is overheated, it cannot be charged. Should this warning occur repeatedly, the camper must be taken to an authorised specialist.

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

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

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

Manually calibrating the sensor

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 display.



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

Charger (charging the battery)



Battery is charged when the charger is connected to the 230V mains. The integrated fan is activated.



Battery is charged when the charger is connected to the 230V mains. The integrated fan is deactivated.



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

Error messages

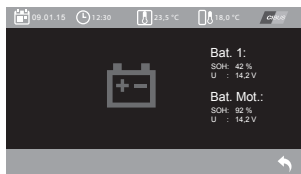


Warning message: undervoltage

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

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

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

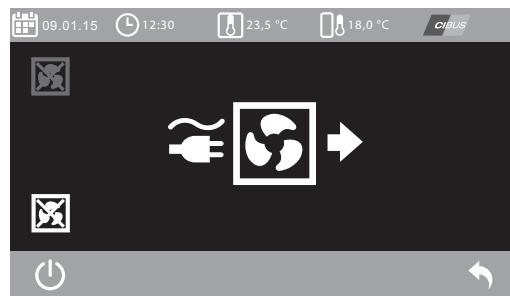


Warning message: age of battery (SoH = State of Health)

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

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

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



Regulating the fan

The fan is always activated if the charger is used to charge the battery. The fan's performance can be reduced by means of the On/Off function.

When reduced, the icon is shown in green.



If the fan is operated with reduced performance, the charger's performance is also reduced to prevent it from overheating.



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

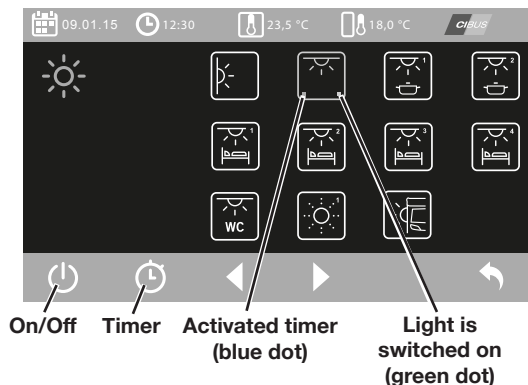
Setting the battery type

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

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



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



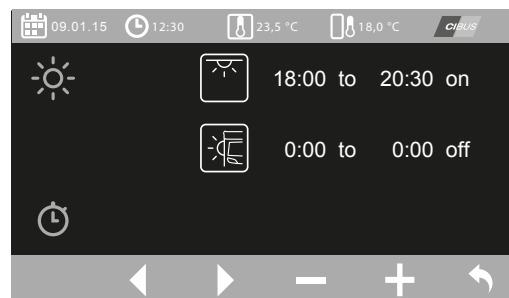
Lighting system

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



The lights for bed 3 and bed 4 are only assigned in the alcove bed and alcove models.

Access the submenu for programming the timer by means of the timer function. Only the ceiling light (top row) and the outer tent light (bottom row) can be regulated using the timer. Activate or deactivate the “Off” function as appropriate.



Programming the timer

Trigger the desired value by means of the arrow keys or the control knob and press the “On/Off” function or the control knob to select it. Turn the control knob or use the “+/-” functions to set the time. Press the control knob again or use the “On/Off” function to confirm the set time.

Activating/deactivating the timer

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

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



The activated timer is indicated in the main menu for the lighting system by a blue dot in the corresponding light icon.

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



Menu for heating system

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

The functions on the TFT control panel are practically identical for all three options. The standard Combi heating system is described below. Differences between this and the optional extras are indicated.



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

Green icons indicate the functions that are operating.

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

Next to this icon, the value

ON = on or

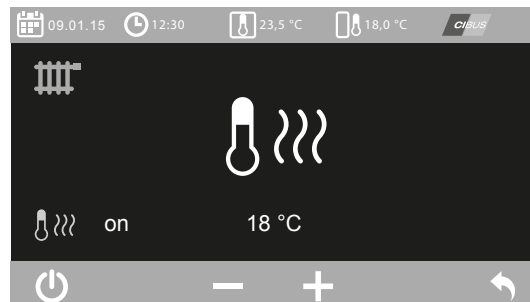
OFF= heating system is not in operation (white icon) is shown.

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



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

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



Setting the desired room temperature

In steps of 1° C from +5° C to +30° C



The Alde hot water heating system can be operated in steps of 0.5° C.



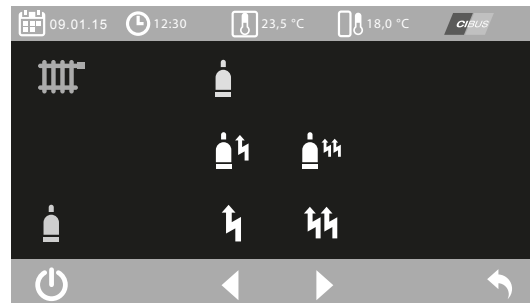
Short-term increase in the amount of hot water

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



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

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



The menu shown above can only be selected for the **Truma Combi e-heating system** and the **Alde hot water heating system**:

Type of operation

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

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

Alde: 1 lightning bolt = 1kW, 2 lightning bolt = 2kW and 3 lightning bolt = 3kW.)



From a performance of 2kW or more, the power supply being fed in must be secured with a 16 Amp fuse. Please speak to the person operating the camping site!

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



Please refer also to the description of the heating system in Chapter 10.



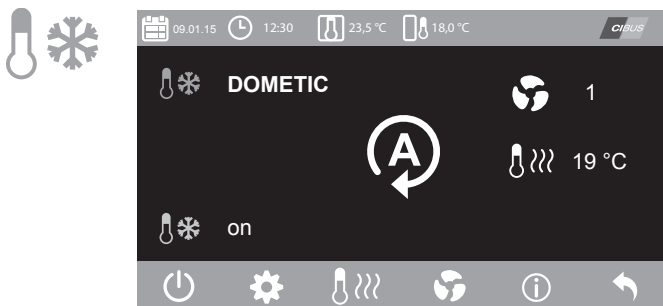
Info menu

Information on the device manufacturer is shown here.



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

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



DOMETIC* air-conditioning system

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

Above, the value

ON = on or

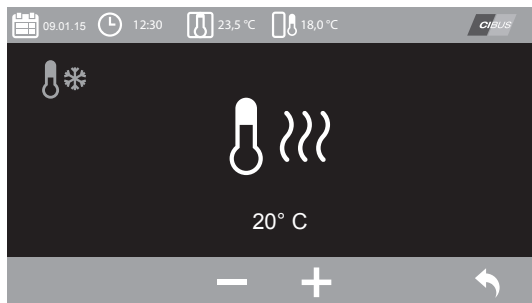
OFF = air-conditioning system is not in operation (white icon) is shown.



Submenu: Selecting the type of operation

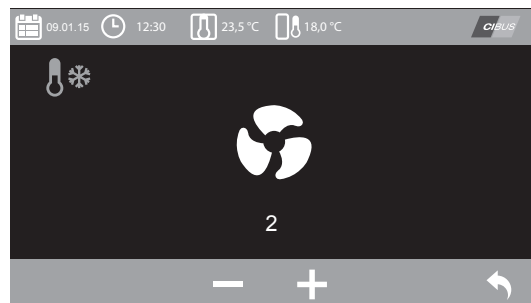
- cooling
- heating
- automatic mode
- air circulation mode

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



Setting the temperature

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



Setting the fan level

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

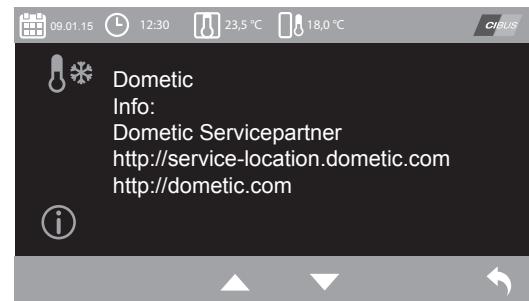


The fan level can only be selected manually for “Cooling” and “Air circulation”. For all other types of operation, the roof air conditioning system controls the fan automatically.

The values can be changed using the “+/-” soft keys on menu bar C or by turning the control knob. The new value is automatically applied after exiting from the submenu.



Please also observe the descriptions in **10.9 Rooftop Air Conditioning**.



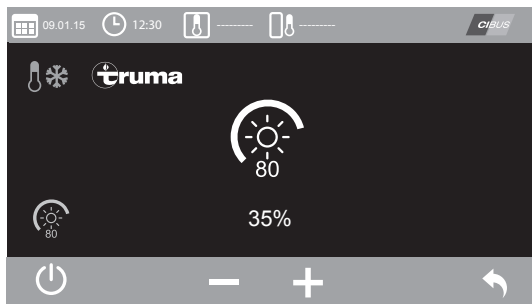
Info menu

Information on the device manufacturer is shown here.

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



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



TRUMA* air-conditioning system

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

Increasing or reducing the value by means of the “+/-” function or the control knob changes the intensity of the lighting integrated in the air-conditioning system. Press the control knob or use the “On/Off” function (left soft key) to confirm the new value.

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



Radio

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

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



AUX (function in DuoControl incl. Ice-Ex*)

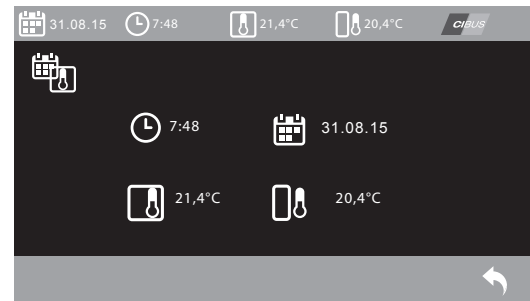
AUX is an external relay output that switches the Ice-Ex cartridge in the gas bottle container on and off.



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

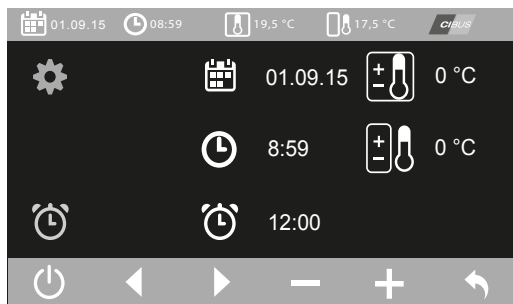


If the mobile home has been equipped with a remote indicator for DuoControl, the Ice-Ex cartridge can only be switched on and off via the remote control. It does not appear on the TFT control panel.



Displaying the data in the fixed header A

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



The temperature display can be changed by a maximum of $\pm 12^{\circ}\text{C}$.

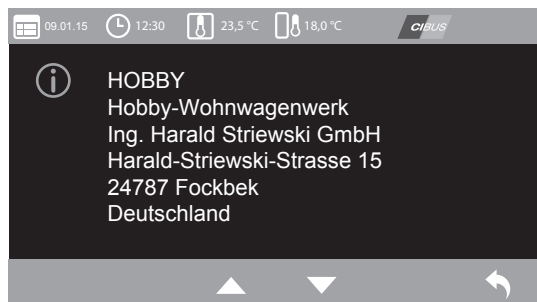
Exit this menu by using the “Back” function; otherwise, after one minute, it will automatically switch back to the main menu on the control panel.

Settings menu (for data in the fixed header A)

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

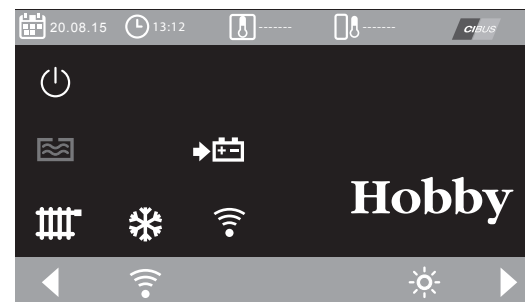
The wake-up time is set and confirmed in the same way. Use the “On/Off” function to activate the alarm clock. The activated alarm clock is shown in green.

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



Info menu on the TFT control panel

Information on the device manufacturer is shown here.



WLAN-Module *

Hobby's CI-Bus board management can link together up to 15 devices, enabling you to operate them using just one central control panel that shows their functions on its display.

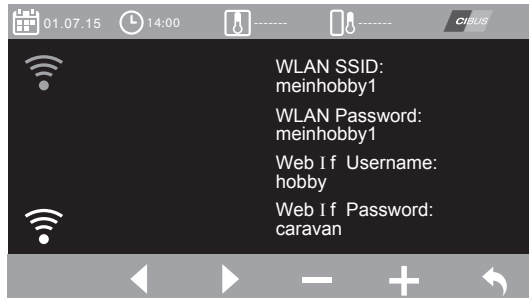
(standard)

When coupled to a WiFi module, all of the functions on the TFT control panel can be wirelessly controlled via your smartphone, tablet or notebook.



The SD card is also found on the WLAN module. The devices are updated on this card. This SD card cannot be written in Windows file format.

After the main switch on the control panel has been switched on and all of the connections have been correctly attached, a WLAN network is set up that is recognized by all WLAN-enabled devices.



The WiFi must be activated in the submenu so that a connection can be set up.

Use the “**On/Off**” function to start the WiFi or shut it down. The WiFi icon turns orange while the program is starting up or shutting down. The WiFi is ready for operation as soon as the icon turns green.

The connection data for the WiFi network and the web server can be seen in the submenu. (The menu below only shows example data.)

Hobby

The device that is to be connected to the network must be connected via the menu WiFi Settings with the network “**meinhobby1**” (in this example). The password (in this example) is also “**meinhobby1**”.

Use the Search/Scan function first if the network is not displayed immediately.

When the device has been connected to the network, call up the URL **http://192.168.0.1** in the Internet browser.

To open the data in the web browser, enter the user name “**hobby**” and the password “**caravan**” (in this example). The page for operating the devices and switching on the lights will then be displayed.



Information

The current values can be read out here (see also p. 107 for the data from the fixed header A and p. 94 for battery management).



Lighting

The different lights can be switched on and off here.



Heating system and built-in devices (where applicable)

Devices that are connected to the control panel can also be controlled via the WiFi network. (See also TFT control panel.)



Changing the access data

The name of the network and the password as well as the access data for the web server can be changed here.

Click on the Get button to call up the values that are presently current. After making any changes, the values must be saved. Changes take effect after approx. 2 minutes.



Circuit board (reverse side)
of TFT display

General information regarding the TFT display

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

It is mounted on the reverse of the circuit board ① of the LCD display. To replace this button cell, the LCD display must be removed from the furniture front by carefully clipping the chrome-plated frame out of its holder. You will then see the screws that fasten the plastic part to the furniture. Loosen these screws to detach the display.



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



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 ceiling lights above the seating arrangement or 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.

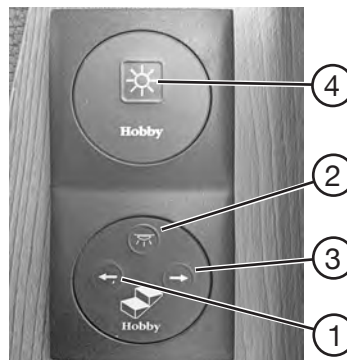
Exception: remote control for alcove and alcove bed

- On this remote control, the key ② is used to switch on the kitchen spotlights.



Remote control, washroom

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



Remote control(s), entrance

These remote control functions work even if the functions of the main switch have been deactivated on the TFT control panel. The remote control controls the electric entrance step.

- Press the key ① to fold the step out; press it ③ again to fold the step back in.
- Briefly press the key ② to switch on the outer tent light (key assignments may vary, depending on the model).
- Briefly press the key ④ to switch on the ceiling light.

**Siesta****Optima**

Remote control for kitchen Optima

- Briefly press the left key to switch on the worktop light.

7.3 Electric power supply

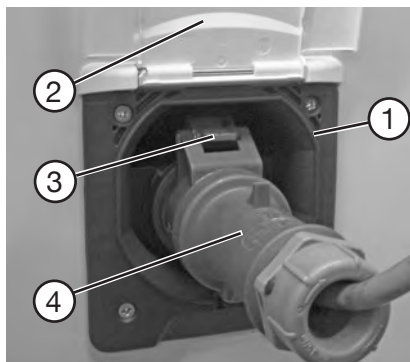
In all of the vehicles, the central electrical system is installed **underneath the passenger seat.**

**External socket**

Electricity for the motor home 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 mobile home is connected to the external 230V mains by a CEE feeder plug ① located in the side wall.

To connect the CEE feeder plug

- Switch off the automatic circuit breaker ① (p. 117) by pressing the rocker switch ② down (p.117).
- Flip up the cover flap of the external socket ② (see 41).
- Completely unwind the connector cable.
- Open the cap of the CEE connector plug ③ by pulling it up in a 90° angle.
- Insert the plug ④ until it locks into place.
- Switch the automatic circuit breaker ① (p. 117) back on.



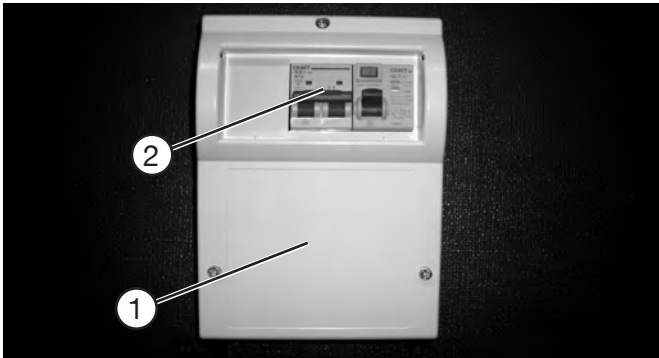
The mobile home's engine must be turned off before the 230V mains connection is hooked up.

To disconnect the electric connection:

- Switch off the automatic circuit breaker ① by pressing the rocker switch down ②.
- Remove the CEE 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 ①, which is located either by the refrigerator, the clothes cupboard or the step to the bed. (Exceptions to this include special installations, such as hot-water heating, etc.. In this case, an additional two-pole 16 A circuit breaker has been installed.) If there are two automatic circuit breakers, both must be switched on.

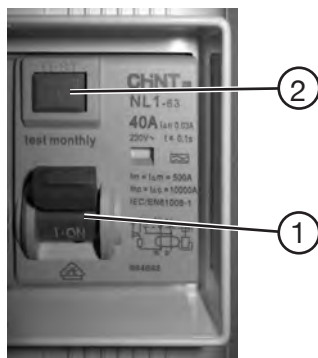
Rules for the mains connection

- Use only a 3 x 2.5 mm² cable with a maximum length of 25 m, a CEE plug and connector to connect the motor home to an external 230 V mains.
- After the mains connection has been plugged in, both the modular and the vehicle battery will automatically be charged by the battery charger in the motor home (even if the Control Panel has not been switched on).



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

- The 230 V mains connection in the motor home has been designed for a total power consumption of 3000 W. If additional devices requiring electricity are connected, such as a water heater, etc., you must ensure that this electric power value is not exceeded, taking other electrical equipment in use, such as the refrigerator, heating, etc., into account.



FI switch and test button

Residual current device

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



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

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



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

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

The rocker switch ② (p.117) jumps down; after it has successfully been checked it must be switched back up to the "On" setting.

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



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

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

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

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

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



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

Operation when the motor is running

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



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

The 12 V supply for the refrigerator only functions when you are driving. If the motor has stopped, the 12 V operation of the refrigerator is automatically turned off again.

To charge a discharged motor home battery optimally while driving, disconnect the 12 V operation of the refrigerator and turn off as much equipment as possible that uses 12 V.

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 motor home battery must rise if

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

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

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

Operation via ancillary battery



- Only accumulator batteries with bound electrolytes (gel batteries) may be installed in those positions specified by the manufacturer.
- The installed gel battery may not be opened.
- When changing ancillary batteries, use only batteries of the same make and capacity. (Setting the battery type on the control panel: see p. 97)
- 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.
- Airing the charger insufficiently will reduce the charge current.
- The surface of the charger casing may become hot when the device is in operation.



Vehicle's electric system underneath the passenger seat

Position of the 95 Ah AGM ancillary battery

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



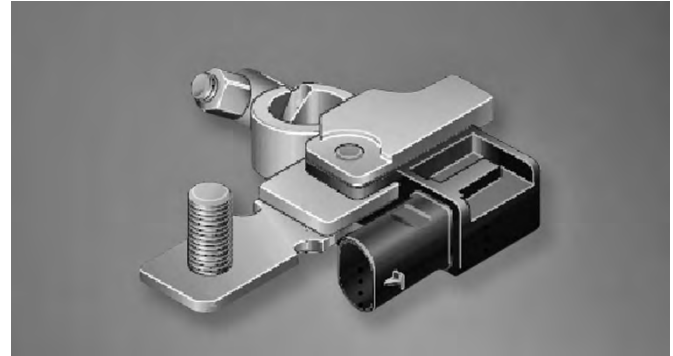
In all vehicles, the optional additional battery is mounted on a base plate in the driver's console.

Operating and charging the ancillary battery

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

Die Ladung der Aufbauatterie erfolgt über folgende Stromquellen:

- the generator when the motor is running
- the CA 360 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 monitors the actual current and the actual voltage in a highly precise manner.

It is possible to precisely predetermine the operating time of the battery based on the actual consumption. The IBS ensures that the battery will be changed in good time and assists in providing active energy management so that the performance requirements of the different electrical devices can be coordinated with the charging of the battery.

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



The battery sensor is protected by a 10 A .



- Always charge the ancillary battery for at least 10 hours before each journey, directly after each journey and before you take the motor home temporarily out of service.
 - 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.
 - If the battery voltage should be less than 10.0V, all devices will automatically be switched off (exception: 12V (TV) sockets and antenna wiring).



Battery circuit breaker

Position of the battery circuit breaker

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

A circuit breaker has been installed to protect the modular battery from being exhaustively discharged when the motor home is not being used. When the switch is opened, the modular battery is completely disconnected from the 12 V mains. **"Off" position = disconnected from 12V mains.**

The battery charger is directly connected to the ancillary battery so that the ancillary and starter batteries can be charged 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** when using the vehicle home and whilst driving.
When the circuit breaker is open, the electrical input stage will **not** engage automatically.



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



Battery charger

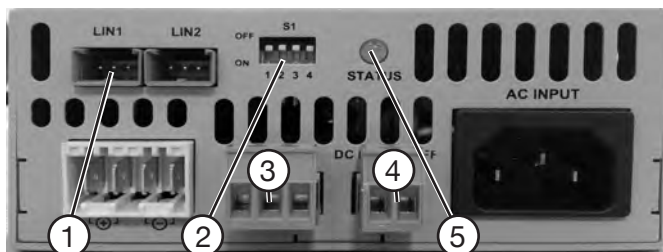
Charger CA-360, 25 A power charging module

The charger supplies the batteries with electric power when there is bus-powered mains operation.
As they heat up, the charger reduces its power output to ensure that there is no chance of overheating.



Das Ladegerät ist am Beifahrersitz von hinten zugänglich.

The fan on the battery charger can be regulated manually.
Please refer to the descriptions for the battery menu on the TFT control panel.



Charger connections

- ① Socket; the middle pin is the sensor.
- ② PCB switches. The switches must all be in the top position, i.e. all set to “off”.
- ③ Changeover contact, for free disposal.
- ④ Contact bridge, fan on/off.
- ⑤ LED blinks to show current charging mode.

7.4 Electrical system

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

All of the lamps in the motor home use 12V LED lights. Only large electrical devices such as the Combi E heating*, air-conditioning system, etc., use 230V.



Assignment of fuses

Assignment of fuses

The fuses for the individual internal electric circuits are located in the input module.

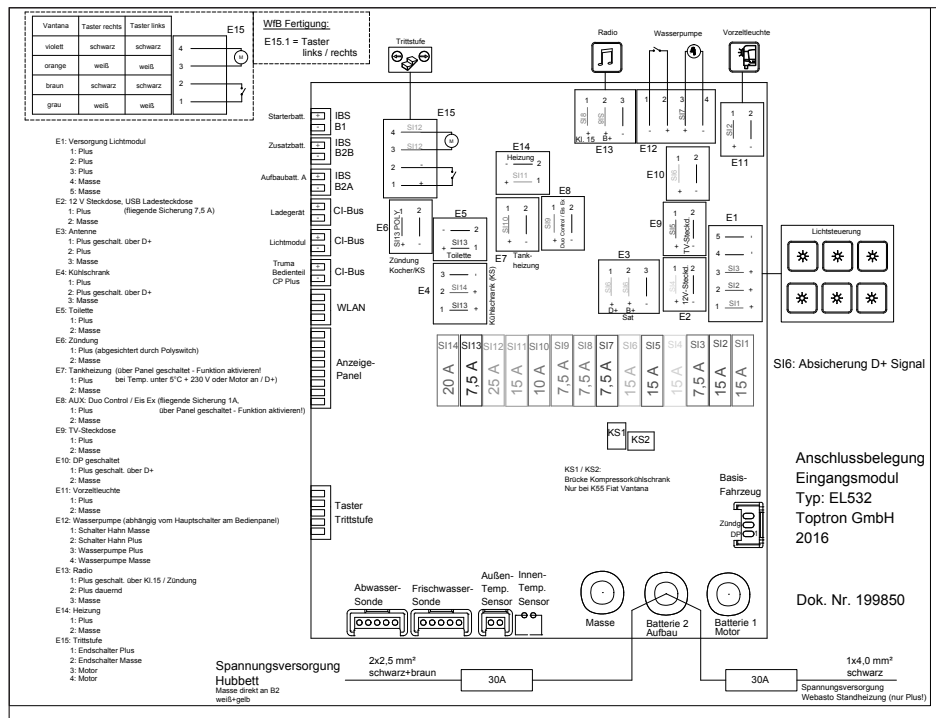


In some models, there may be slight deviations in this assignment.

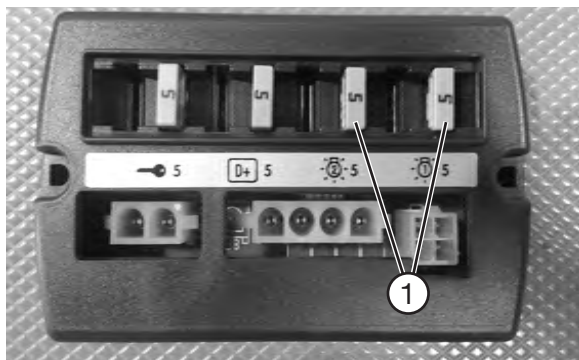


Only replace defect fuses if you know what caused the fuse to blow and have fixed this.

Assignment of connections for input module EL 532



Model-specific variations may occur.



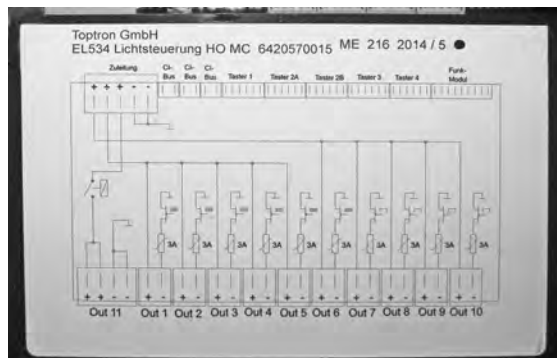
Interface module

Fiat interface module

The interface module protects the superstructure's outside lights: the right and left side marker lights as well as the front position lights (① 5 Amp fuse).

Position of the interface module

B-pillar on the passenger side (right-hand side in the direction of traffic) behind the plastic casing in the lower section.



Contact plan for the light control system

Light Control System

The outputs are protected by internal circuit breakers (poly-switch fuses). These fuses are self-resetting and can be reused. It is not possible to exchange them, because they do not require maintenance.



TV connections

TV unit

The installation area for the flat-screen TV differs from model to model.

The required connections can be found right next to this space, possibly in a cupboard.



Antenna and digital SAT cable

The corresponding connection for the SAT antenna (E3) is fed out openly in the position appropriate for the model in question.

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

Cable colours:

- white = mass
- black = steady plus for ancillary battery
- brown = D+ signal

Position

Optima:

V60 GF/V65 GE/T65 GE/

T70 E/T70 GE:

T60 H/T65 FL/T65 HFL:

T75 HGE:

Wall cabinet, seating arrangement

Clothes cupboard

Wall cabinet at foot of right-hand bed
(in the direction of traffic)

T70HQ:

Clothes cupboard left-hand bed
(in the direction of traffic)

Siesta:

A55 GS/A65 GM/A70 GM: Clothes cupboard



External socket and antenna terminal in the outer tent

External socket and antenna terminal in the outer tent*

As an option, your motor home also has a combined external socket and antenna terminal 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



USB connection

USB charging socket*

The connection to the USB charging socket can be accessed from below. This connection is suitable only for charging USB-compatible devices.

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



Reading light in the seating arrangement

7.5 Special Lights

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

Seating arrangement

The reading lights can also be switched on using the control panel (S. 88).

Lighting in clothes cupboard/over children's bed

These lights can only be switched on manually.



SAT-nav device

7.6 Mobile navigation *

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



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



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

Reverse drive video system *

As part of all mobile homes' standard equipment, they have been prepared for connection to a reverse drive video system:

The front connection of the built-in video cable is located in all vehicles underneath the upper right-hand compartment in the dashboard, which can be accessed after dismantling the inner shell.

Siesta

The rear cable end can be accessed from the inside by removing a plastic plug at the rear of the mobile home (on the rear wall; in some models accessible from above the wall cabinet).

Optima

The rear cable end can be accessed from the outside of the vehicle. It is behind the middle, upper rear wall panelling.

The following cables have been installed:

Model	Manufacturer	Part description	Part number
Siesta	Caratec	camera cable, miniature camera	MCA29004 for AVN4429
Optima	Waeco	camera cable RV-620	9103555670, 20m

7.7 Subsequently installed devices

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

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



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.
- Garden hoses, watering cans and similar materials unsuitable for drinking water should never be used to fill the mobile system.
- If the motor home 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 hot-air heating system, the kitchen and toilette via a submersible pump. The TANDEM submersible pump operates electrically:

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

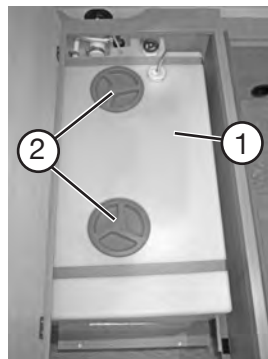
The following applies for the TANDEM submersible pump:

- 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 100 l and is located in the seating arrangement.

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

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



Filler neck for the fresh water tank

Opening

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

Closing

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



Check the red service lids ② **S. 133** regularly; they may become loose if the fresh water tank is filled often.

Filling the water system

- Place the motor home 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.

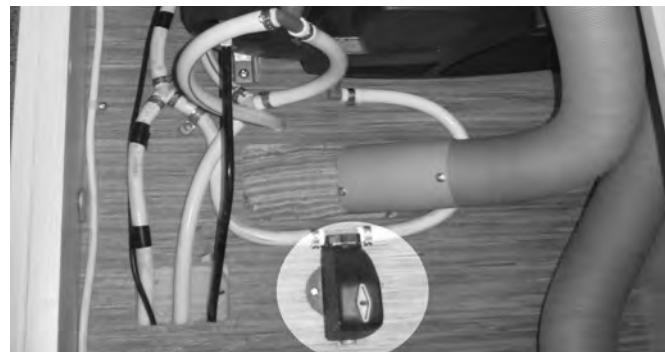
To remove water

- 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**); the options for settings are described on p. 156 “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. 164 Frost Control**).



Position of the Frost Control valve

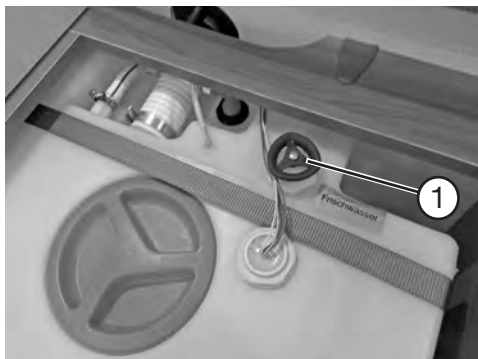
The Frost Control valve is always located directly by the model-specific place of installation for the hot-air heating system.



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

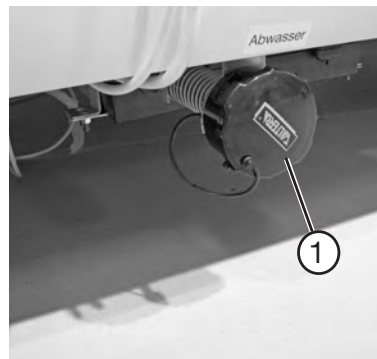
Emptying the fresh water tank

The outlet valve is located 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 motor home is not in use, and especially if there is frost.



Waste water opening



Valve for waste water opening

Emptying the waste water tank

- The waste water opening is located on the left side underneath the vehicle.
- The valve ② for opening the waste water opening is located in a protected position in the gas-bottle container or directly by the opening itself.
- Unscrew the lid ①, open the valve ② and allow the waste water to run off.
- When the waste water has drained out completely push the slide valve back in and screw the cap back on.



The lid ① slightly sucked into the opening. Therefore, never close the lid too tightly.

Emptying the entire water system

- Use the control panel to switch off the electricity for the water pump by pressing the main switch.
- Open all of the water taps to the centre setting.
- Hang up the adjustable shower head in the shower.
- Open all of the outlet valves (including the FrostControl).
- Unscrew the cap on the cleaning port of the fresh water tank ①.
- Unscrew the overflow pipe in the fresh water tank.
- Remove the lid of the water tank. 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 (included in DeLuxe package):

After the heating system has been switched on on the control panel, the hot air is conducted to the waste water tank. This prevents the waste water from freezing in a light frost.

Exception:

Alde hot water heating system* (please refer to description in Chapter 10.3)

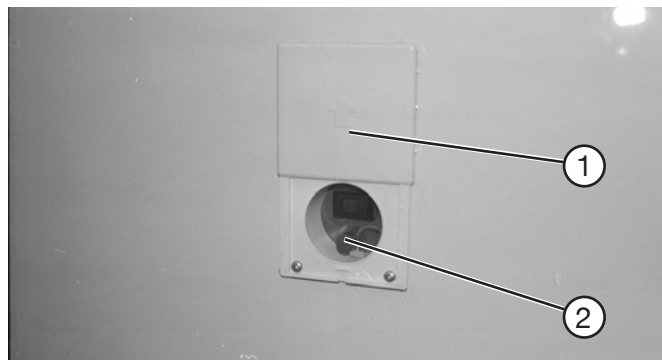


Do a small quantity of antifreeze agent (e.g. table salt) to the waste water tank if temperatures are significantly below freezing to prevent the waste water from freezing.

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

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

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



Connection for outside shower

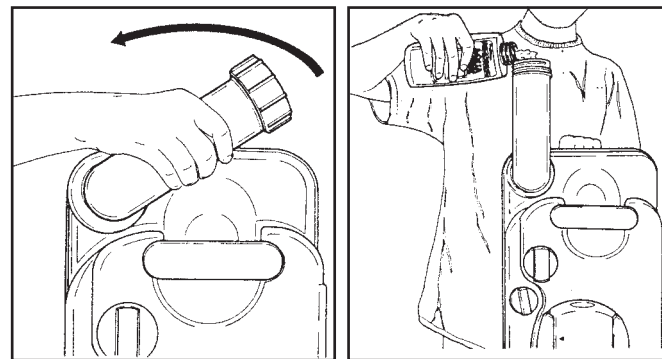
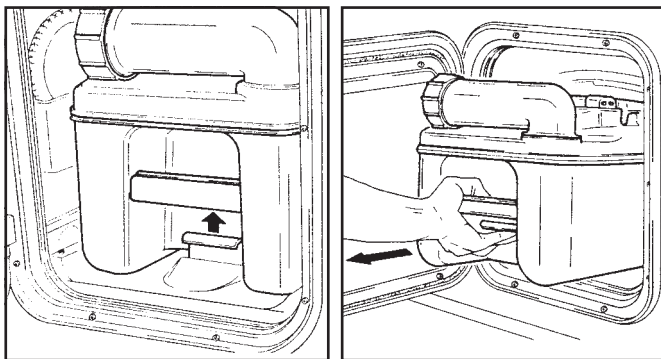
Water connection for external shower *

Opening

- Push the cover ① up to gain access to the water connection.

Closing

- Remove the external shower's hose from the connection point ② and attach the protective cover.
- Push the cover down.



8.3 Toilet

Before you can use the toilet, you must first prepare the waste tank by following the steps below.

Preparing the waste tank

- Open the Thetford door (see 5.1) and pull the holding bar up to remove the waste tank.



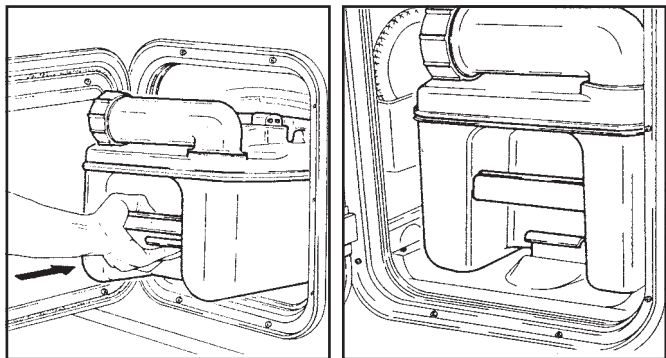
The waste tank can only be removed when the drain valve is closed.

- Pull out the tank as far as possible, keeping it level.
- Slightly tip the waste tank and then pull it out completely.
- Place it in an upright vertical position.
- Turn the drain nozzle to an upward position.



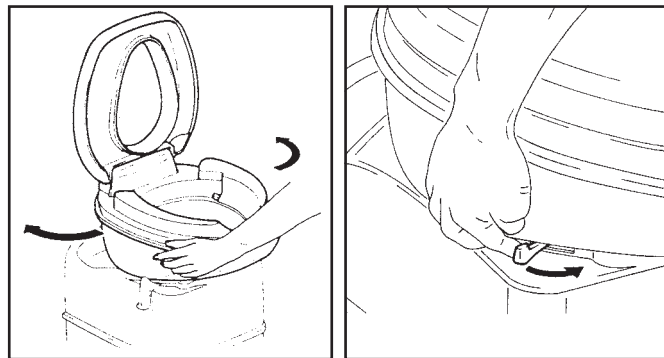
Use toilet fluids very sparingly. An overdose is no guarantee of preventing possible odours!

- Fill the waste tank with the correct amount of toilet fluids.
- Then add enough water to completely cover the bottom of the waste tank.
- Return the drain nozzle to its original position.



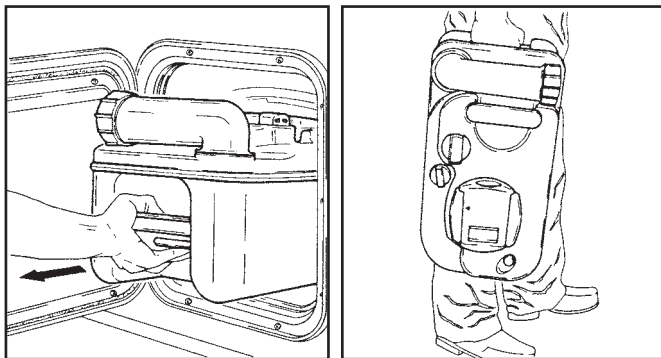
Never fill toilet fluids directly into the toilet bowl.

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



Using the toilet

- Turn the toilet bowl to a comfortable position.
- Fill the toilet bowl with a small amount of water by pressing the flush button or by opening the drain valve by pulling the valve handle under the toilet bowl towards you.
- Use the toilet.
- After use open the drain valve (if still closed) and flush. Close the drain valve after flushing.



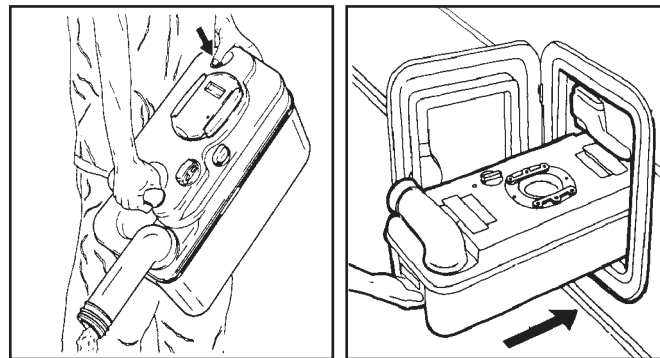
Emptying the waste tank

The waste tank must be emptied at the latest when the LED lights up. It is recommended that the tank is emptied before this. The LED lights up when the tank contains more than 15 litres. From this point in time the tank has a residual capacity of 2 litres, representing approx. 5 flushes.

- 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!

- Take the waste tank to a designated disposal site, making sure to hold the drain nozzle in an upright position.
- Remove the cap on the drain nozzle.
- Tilt the waste tank so that the drain nozzle is pointing downwards.
- Press the vent button with your thumb and hold it down. The waste tank will drain itself.
- Return the waste tank to its storage position, ensuring that it is pushed in until the holding bar locks into place.
- Lock the service flap.

Chapter 9: Gas

9.1 General safety rules when using LPG fittings



The operating pressure for gas is 30 mbar.



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

Exception:

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

Checking the gas fittings

- Before initial operation have the LPG fittings checked by an expert.
- The gas fittings must be checked every 2 years by an LPG expert. This must be confirmed on the certificate (in accordance with Form G 607 from the German Association of Gas and Water Experts (DVGW) and EN 1949).
- Regulator knobs, hoses and exhaust pipes must also be checked.
- The safety regulators and hose lines must be replaced at least every 10 years. Should you discover tears, porous spots or similar defects in the hose, it must be replaced immediately.

- The connecting hose should also be checked regularly for damage. Replace it immediately if you find tears, porous spots or similar damage.
- The operator is responsible for having checks carried out. This also applies for vehicles that have not been approved for driving on the road.



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

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

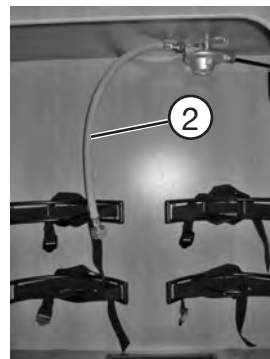
The gas fittings may only be taken into operation again after they have been checked by an expert.

Built-in objects and changes

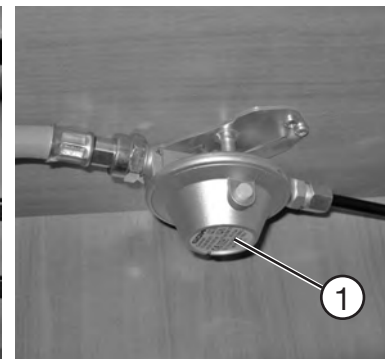
- Objects may only be built in and changes to the gas fittings made by an expert.
- Only devices with a constant connection pressure of 30 mbar may be operated.
- Following any changes to the gas fittings they must be rechecked by a recognised expert, who must provide a written confirmation.

Regulators and valves

- Use only special vehicle regulators that have a safety valve. In accordance with the German DVWG (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 governors must have a fixed pressure of 30 mbar. The regulations of EN 12864, Appendix D apply accordingly. The pressure governors must have a minimum flow rate of 1.2 hx/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 wall

Gas regulator for France and Great Britain^{*}

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

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



This must be taken into account should it be necessary to replace the hose.



Connections on gas pressure regulators are screwed on counterclockwise.

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 D (dry 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, except electrical heating devices (note their power consumption) - but no radiant heaters, because they can cause danger of fire and suffocation.



Read the manufacturer's operating manuals carefully!



Safety instructions in gas bottle container

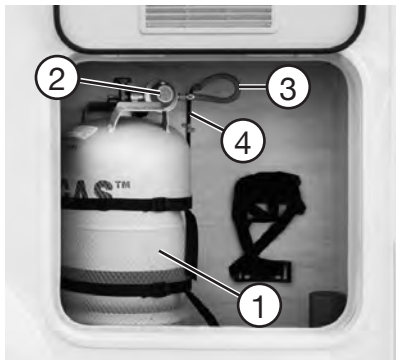
9.2 Gas supply

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

- Cooker
- Refrigerator
- Heating
- Hot water boiler
- Oven
- Possibly special accessories



Fastening straps



Connected gas bottle

Gas bottle cabinet

The gas bottle container can be accessed separately in the side wall.

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



Gas bottles must be shut while driving.



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

The following applies to the gas bottle cabinet:

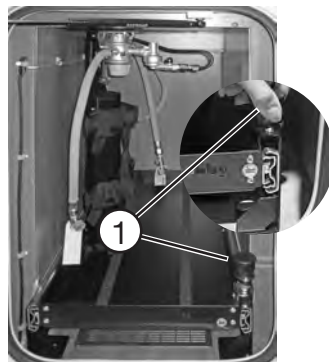
- Always check the gas cylinder mountings before driving. Stand the gas cylinders upright and close the valves.
- Pull any loose straps tight.
- A leak detection agent must always be used to check that the control knob or hose connections to the bottle do not leak every time the bottle is replaced.
- The gas bottle cabinet is not suitable for storing additional items.
- The stop valves on the gas cylinders must always be easily accessible.
- Do not close the gas bottle cabinet's air vents.
- Ensure that third parties cannot gain access to the gas bottle cabinet.

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.

- Open the flap of the gas bottle container.
- Close the main stop valve on the gas cylinder. Pay attention to the direction of the arrow.
- Unscrew the gas pressure regulator/ high-pressure hose* by hand from the gas bottle (left-handed thread).
- Loosen the fixing strap and remove the gas cylinder.
- Replace the full gas cylinder in the gas bottle cabinet and carefully fasten it using the fixing straps.
- Screw the gas pressure regulator/ high-pressure hose* by hand on to the gas bottle (left-handed thread).
- **Only when equipped with a crash sensor*:**
Press on the hose rupture protection (green button) on the high-pressure hose (see p. 148).
- Check that gas is not escaping from the connection point using leak detector spray.
- Close the door of the gas bottle container.



Extendable gas bottle container



Extendable gas bottle container with gas bottle

Extendable gas bottle container (only for Optima model/included in DeLuxe package)

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

- To pull it out, pull the locking pin ① 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.



Heating (Oven*) Gas cooker Refrigerator

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 top drawer in the kitchen unit

The following applies to stop valves and valves:

- All the valves on gas devices must be closed while driving.
- The lower photograph shows the shut off valves when they are closed. To open the valves, they must be turned to a vertical position. (See upper photo)
- No firing point may be in operation when filling the petrol tank of your vehicle on ferries or in the garage.



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



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



Never carry out leak tests near an open flame.

Gas regulator with a crash sensor *

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

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

(Effect of delay $3.5 \text{ g} \pm 0.5 \text{ g}$; this corresponds to an impact speed of 15-20 km/h against a fixed obstacle.)

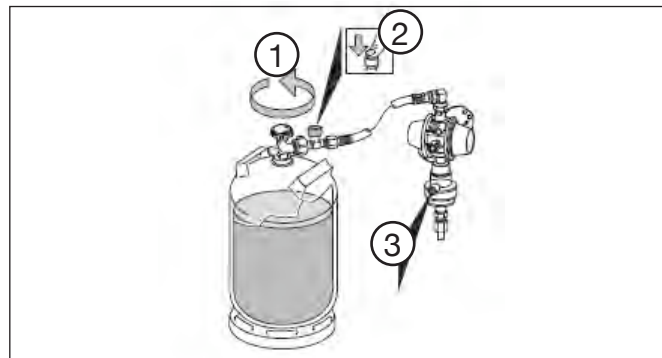


Diagram of crash sensor

To operate

- ① Open the valve on the bottle.
- ② Press firmly on the hose rupture protection (green button) on the high-pressure hose.
- ③ If necessary (e.g. after it has been newly mounted or the gas bottle accidentally hits against the gas pressure regulator system) press the green reset button on the MonoControl CS (resets the crash sensor activation element).

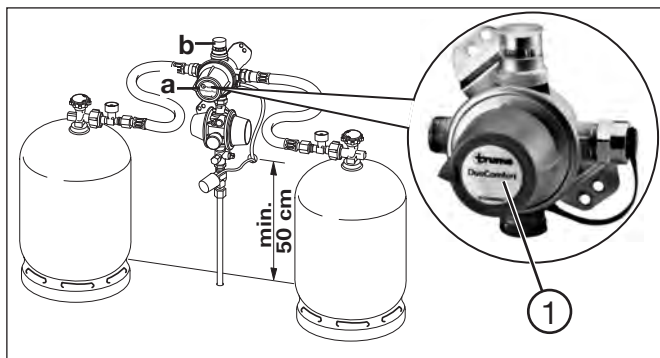


Diagram of DuoControl CS

Switching valve for the two-cylinder gas unit*

The DuoControl CS changeover valve enables you to automatically change from the operating bottle to the spare one. The crash sensor is integrated in the DuoControl; it enables you to use the heating system while driving.



It operates similar to the MonoControl CS.

a Turn the knob to the left ① or right to determine which cylinder is to be used.

b Shows the status of the cylinder in use.

Green: full

Red: empty

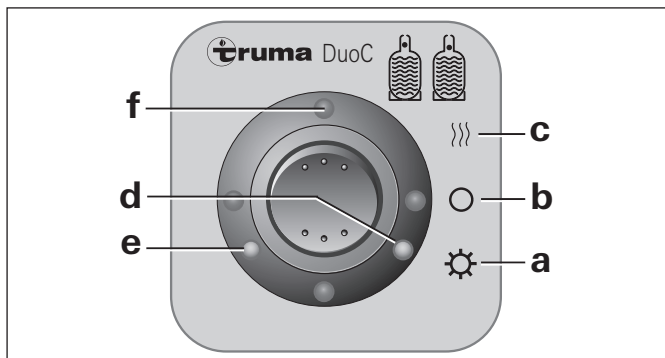
Function

- Attach gas cylinders and open the valves of both gas cylinders. Turn the knob to the left or right as far as it will go.

If the pressure in the cylinder is less than 0.5 bar, the valve will automatically switch the cylinder.



An Ice-Ex cartridge is integrated in the DuoControl CS changeover valve. It prevents the valve from freezing. Please also note the description for the TFT control panel, AUX menu (p. 107).



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.

- a** Operation in summer. Press the switch down and the LED will show the status of the cylinder in use.
- b** Display switched off.
- c** Operation in winter. Press the switch up and, in addition to showing the status, the switching valve will be heated (yellow LED lights up).
- d** Red LED (cylinder in use is empty)
- e** Green LED (cylinder in use is full)
- f** Yellow LED (operation in winter)



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.



External gas socket

External socket for gas *

The external socket for gas is used to connect external gas devices such as a gas barbecue or lamp.



The operating pressure of the device to be connected must be 30 mbar (1 bar = 14.5 PSI). Maximum performance of devices to be connected: 1.5 kW

The plug connection can only be hitched when the emergency shutoff valve has been closed. Push back the clutch sleeve to undo the safety latch.

The coupling valve has been constructed in such a way that the emergency shutoff valve can only be opened if a gas hose has been attached. When hitching, the plug connection is plugged into the safety coupling.

If no gas hose has been attached, always use the protective cap to shut the opening of the valve.



The external socket for gas is only suitable for extracting gas, not for supplying gas to the system.

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 motor home. 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.



Truma-Heating

10.2 Heating



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

Exception:

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



The change to the iNet-ready version was carried out during the current season. Depending on when the mobile home was manufactured, iNet-ready functions are available, whereby the Truma CP plus control panel functions as an interface for operating connected devices via the Truma App and iNet Box.

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.

Place of installation:

- side seat in the seating arrangement or under the bed.

Initial operation

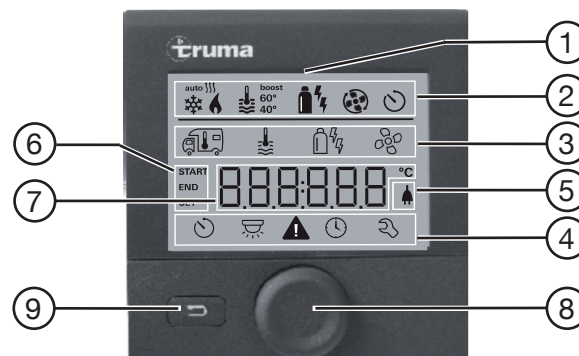
- Several air vents have been built into the mobile home. Pipes transport the hot air to the air vents. Set the air vents so that the hot air can escape to where it is required.
- Check that the chimney is clear. Remove any covers.
- Open the gas bottle and gas shutoff valve on the gas pipe.



- Only operate the device if it is in perfect technical condition.
- Always have malfunctions repaired immediately. Only repair malfunctions yourself if such malfunctions are described in the troubleshooting instructions in this manual.
- Do not carry out any repairs on or make any changes to the device.
- Only have a defect device repaired by the manufacturer or their service department.



If the system's power supply is interrupted, the time must be reset.



Truma control panel "CP plus"

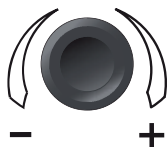
Operating and display controls

- ① Display
- ② Status line
- ③ Menu line (top)
- ④ Menu line (bottom)
- ⑤ Display: 230V mains voltage (charging current)
- 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)

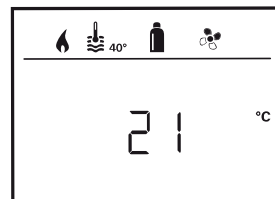
- Main function ON / OFF
- iNet-ready: use the adjusting knob / pushbutton to change the function (see APP mode)

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 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 ⑥.

To switch on/off

To switch on

- Press the adjusting knob / pushbutton.



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

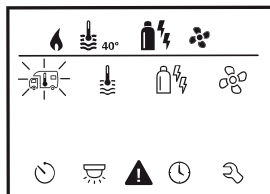
To switch off

- Press the adjusting knob / pushbutton for longer than 4 seconds.
- **iNet-ready:** After 2 seconds, “APP” appears on the display; after a further 2 seconds, “OFF” appears on the display.



Due to an internal lag feed in the heating or air-conditioning system, it may take a few minutes for the Truma CP plus control panel to switch off.

Selecting the setting mode



Press the adjusting knob / pushbutton

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

APP mode in connection with an iNet Box

Function

In APP mode, the connected devices as well as the Truma CP plus control panel switch to stand-by.

- no heating function
- no hot water generated
- air-conditioning system does not work
- the timer on the Truma CP plus control panel does not work

The CP plus control panel continues to receive commands via the Truma APP or the air-conditioning system's infra-red remote control. The connected devices can still be operated.

Turning on the APP mode

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

Turning off the APP mode

The APP mode is turned off

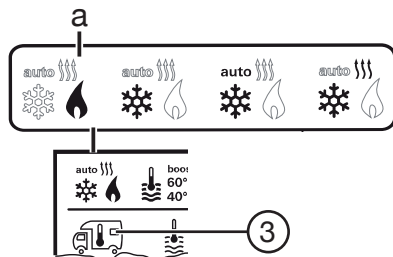
- when new values are transferred via the Truma APP or the air-conditioning system's infra-red remote control;
- when the Truma CP plus control panel is alerted by pressing the adjusting knob/pushbutton. The previously saved values will then be imported for renewed operation.



Changing the room temperature

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

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



a = heating¹⁾

- Heating is switched on.
- Adjustable range of temperature: 5 - 30°C (in increments of 1°C)
- Use the adjusting knob / pushbutton for fast temperature changes (on stand-by screen).

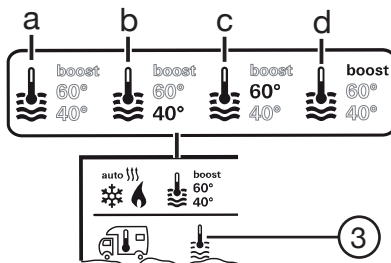
¹⁾ The icon will continue to blink as long as the desired room temperature has not been reached.



Changing the hot water temperature

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

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



a = boiler¹⁾ is switched on

b = 40° ** hot water temperature of 40°C

c = 60° hot water temperature of 60°C

d = BOOST¹⁾ specifically heats up the contents of the boiler (boiler operation) fast for a max. period of 40 min.

¹⁾ The icon will blink until the desired water temperature is reached.

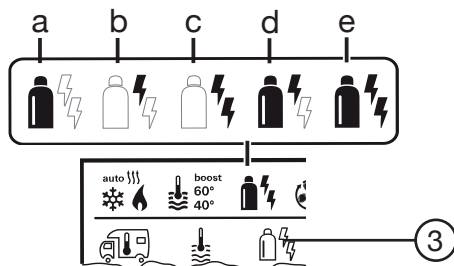
¹⁾ Hot water temperature of 40°C can only be maintained at 40° C for a limited period of time if both the room and the water are being heated.



Selecting the type of energy *

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

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



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

¹⁾ Mixed operation (electric and mixed operation are optional extras)



As soon as the heating has been switched on (room temperature and hot water temperature have been activated) the type of energy selected in the previous heating operation is displayed in the status line.
Manufacturer's default setting: gas.

Special features in mixed operation

Interrupting the 230V power supply:

The heating system will switch automatically to gas operation. As soon as the 230V power supply has been reinstated, the heating system will automatically switch back to mixed operation.

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

Combi Gas The heating system will switch automatically to electric operation. If it is running in mixed operation, the cause of the malfunction must be eliminated. Use the control panel to switch the heating off and then on again.

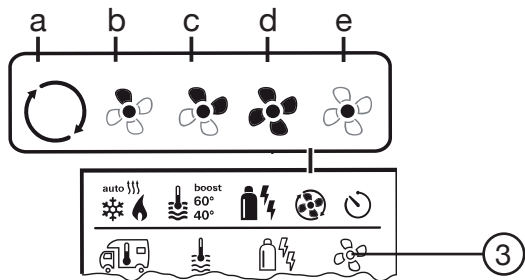
Special features in electric operation

- If the 230V power supply is interrupted and the 12V supply has been switched on, an error code will be shown on the display.
- As soon as the 230V power supply has been reinstated, the heating system will automatically be restarted using the previous settings. The error code will disappear.

Selecting the fan speed

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

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



Icon	Type of operation	Description
-	OFF	Fan is switched off. (Can only be used if no device is being operated.)
a	VENT ¹⁾	Air circulation, if no device is being operated. 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

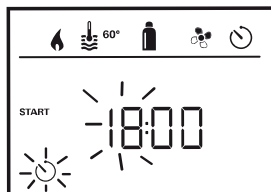


The timer can only be selected if the clock on the control panel has been set.
If the timer has been activated (ON), the menu item Activate timer (OFF) is first displayed.

Use the adjusting knob / pushbutton to select the icon in the menu line ④ .

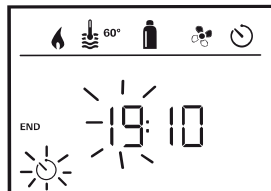
- Press to switch to the setting mode.

Entering the start time



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

Entering the end time

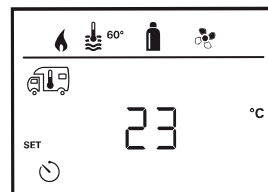


- Use the adjusting knob / pushbutton to set the hours and then the minutes.



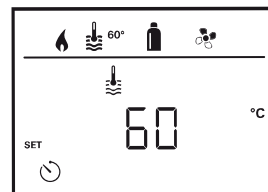
If the start/end time was exceeded during entry, the operating parameters will only be taken into account after the next start/end time has been reached. Until then, the operating parameters set outside the timer will remain valid.

Setting the room temperature



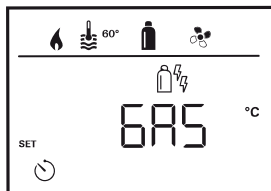
- Use the adjusting knob / pushbutton to select the desired room temperature.
- Press the adjusting knob / pushbutton to confirm the temperature.

Setting the hot water temperature



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

Selecting the type of energy *

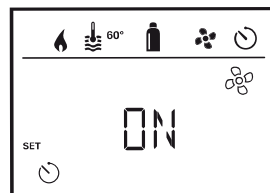


- Use the adjusting knob / pushbutton to select the desired type of energy.
- Press the adjusting knob / pushbutton to confirm the temperature.



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

Activating the timer (ON)

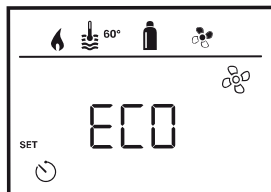


- Use the adjusting knob / pushbutton to activate the timer (ON).
- Press the adjusting knob / pushbutton to confirm the time entered.



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

Selecting the fan speed



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



The menu item “Select fan speed” will be depicted when the heating / hot water temperature has been set.

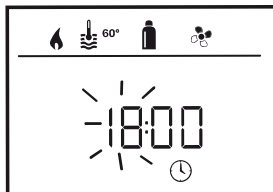
Deactivating the timer (OFF)



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



Setting the time

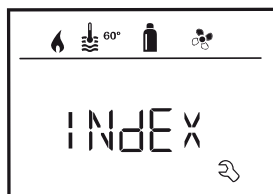


- The hours blink.
- Use the adjusting knob / pushbutton to set the hours (24-hour mode).
- After pressing the adjusting knob / pushbutton once again, the minutes will blink.
- Press the adjusting knob / pushbutton to confirm the time entered.



Service menu

To show the version number of the connected devices



Show the version number of the heating or control panel.

Changing the background illumination of the control panel



The background illumination can be changed in 10 increments.

Changing the language



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

Calibrating the temperature sensor (OFFSET)



The temperature sensor for the heating can be individually adjusted to the size of the vehicle. The offset can be set in increments of 1°C within a range of -5°C to +5°C.

Resetting to manufacturer's default setting (RESET)

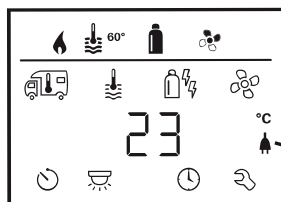


The reset function resets the control panel to the manufacturer's default setting. It deletes all of the settings you have made.

Confirming the reset

- Press the adjusting knob / pushbutton

Display: 230V mains voltage



The icon signals that the 230V mains voltage (charging current) is available.

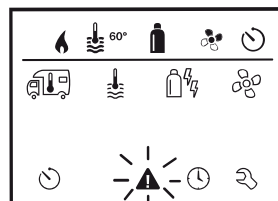


This can only be displayed in connection with a Combi E CP plus heating system that includes additional heating rods for electric operation (optional extra).

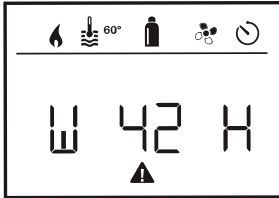


Warning

A warning icon appears to signal a warning that one of the operating parameters has reached an undefined status. In this case, the device in question will continue to operate. As soon as the operating parameter is once again within its specified range of values, the icon will disappear.



Reading out the warning code



- Use the adjusting knob / pushbutton to select the icon.
- Press the adjusting knob / pushbutton. The current warning code will be displayed. Use the error list to determine the cause of the warning and eliminate it.

W = Warning
42 = Error code
H = Heating

Cause eliminated / Return to setting mode

- Press the adjusting knob / pushbutton.

Cause not eliminated / Return to setting mode

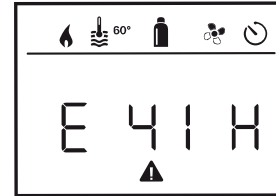
- Press the reset button.



In this case, the warning will not be acknowledged on the control panel and the warning icon will continue to be displayed. The control panel will remain in a warning state. Other connected devices can be operated.

Malfunction

If there is a malfunction, the control panel will immediately go to “Malfunction” mode and display the Malfunction error code.



E = Malfunction
41 = Error code
H = Heating

Cause eliminated / Return to setting mode

- Press the adjusting knob / pushbutton.
- 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.

Maintenance

This device requires no maintenance. Use a non-abrasive cloth dampened with water to clean the front. If this is not sufficient, use a neutral soap solution.

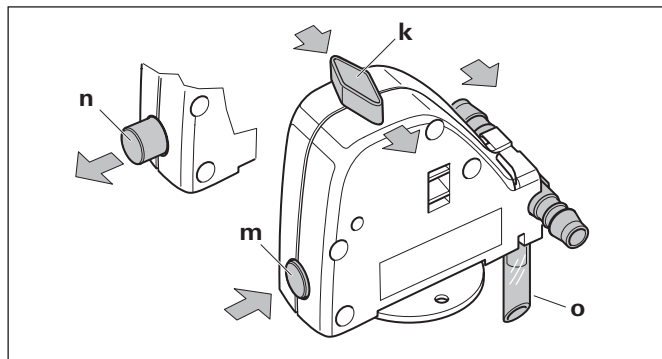


Diagram of Frost Control

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).



Hot air valve

Hot air valve in alcove

The alcove models are equipped with hot air vents in the alcove bed. The slider ① is used to regulate the amount of hot air.

Depending on the model, the hot air slider is located either on the standing wall of the kitchen unit in the direction of the passenger seat or in the seating arrangement on the side wall towards the rear of the mobile home.



Alde hot water heating system

10.3 Hot-water heating system



You are not permitted to operate the hot water heater while driving.

Exception:

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

The Compact 3020 LPG heater is a hot-water heating system which heats hot water separately (contents: 8.5 l). It is possible to heat up the heating system without filling the hot-water heater with fresh water.

Location

- In the wardrobe.

Important information

- Please read the separate operating instructions carefully before initial operation of the heating system.
- Always turn off the main switch for the heating system whenever the vehicle is not in use.
- If there is danger of frost, always drain off the fresh water in the hot-water heater (**see 8.2**).
- You may not start the heating if the device has not been filled with glycol.
- To make the best possible use of the convection principle, the air must not be prevented from circulating throughout the motorhome, e.g. behind the back cushions, winter ventilation slots, in the bed frame and behind the stowage cupboards.



Check the amount of liquid in the expansion tank at regular intervals. When the heating is off, the liquid should be approx. 1 cm above the "Min" mark.

Modes of operation

- LPG operation
- Heating cartridge operation (230 V)
- Combined LPG and heating cartridge operation

Function modes

- Water heating
- Heating and water heating
- Heating

Operating device

When in the idle position, the device shows which heating functions have been activated; the background lighting of the display is off.

After two minutes, the operating device automatically switches from the set position to the idle position if no button has been pressed or if the idle position has been set using the arrows.



For further detailed information on operation, handling and maintaining the hot-water heating system, please refer to the separate operating instructions for “Alde Compact 3020”.

Use the panel by the entrance to operate the basic functions of the hot-water heating system (**see p. 61**).

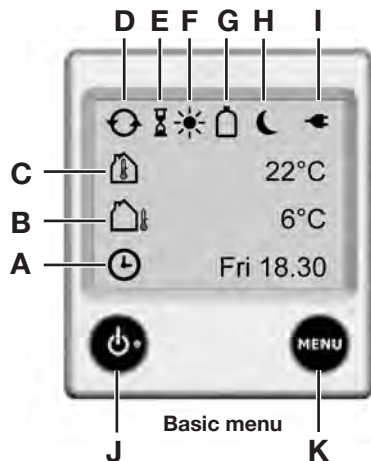
If the hot-water heating system is on, the waste water tank will be heated electrically. Please refer to the descriptions on p. 93.



Control panel for the hot water heating system

To start the hot water heater

To start the heating system, press the On/Off button and the start image will appear. The heater will start with the settings that were last used.



Idle position

- A. Clock.** The clock shows the date and time (when activated).
- B. *Outside temperature.** The outside temperature is displayed.
- C. Inside temperature.** The inside temperature is displayed.
- D. Circulation pump.** This icon is displayed when the circulation pump is in operation.
- E. Starting the heating system automatically.** This icon is displayed when this function has been activated.
- F. Daytime automatic system.** This icon is displayed when this function is activated.

- G. *Liquid gas bottle full/empty.** This icon is displayed when the sensor on the gas regulator of the bottle is connected and has been activated. If a de-icer* has been installed, the icons will be displayed for the set mode together with the bottle icon.
- H. Nighttime automatic system.** This icon is displayed when this function is activated.
- I. 230 volts.** This icon is displayed when a voltage of 230 V is applied to the heating system.
- J. On/Off button.** Main switch for the heating system.
- K. MENU key.** Key for the settings menu.

The functions marked (*) are accessories. They have not been installed in every vehicle.



Settings menu

Settings menu

Start the settings menu by pressing the MENU key. The back-light goes on and those functions that can be set will be displayed. The control unit will switch to the idle position after 30 seconds if the screen is not operated.

1. The temperature shown is the temperature presently set.
2. Raise the temperature by pressing "+". Lower the temperature by pressing "-".
3. The settings are now finished and the heating will run until the set temperature has been reached.



It is not possible to set any temperature if the daytime or nighttime automatic system is in operation. The plus and minus icons are then greyed out.



Setting the desired temperature

The temperature can be set from +5 °C to +30 °C in steps of 0.5 °C.



Hot water

The boiler can also be used even if it has not been filled with fresh water.

1. No hot water.

If you do not need hot water, press "-".

(The icon  is empty).



It is not possible to make any settings for hot water if the daytime or nighttime automatic system is in operation and you have switched off the hot water. The plus and minus icons are then greyed out.

2. Normal operation.

If there is fresh water in the tank and you would like to have hot water, press "+".

(The icon  is half full.)



If the "Operation" function for the pump has been set to "Cont", you cannot select this.

3. More hot water.

Should you need more hot water, you can temporarily increase the water temperature to approx. 65 °C. Press the plus key "+".

(The icon  is full.)

After 30 minutes, the hot-water heater will switch back to normal operation. If you have selected more hot water, the circulation pump will continue to operate.



If the "Operation" function for the pump has been set to "Cont", the function "Permanent pump operation" will be disabled for 30 minutes, but then returns to permanent pump operation.

You do not need to make any settings if you only require hot water, for example in summer when no further heating is required. The heating system will control this function automatically.



Heating with electricity

Use the following procedure to activate the "Heating with electricity" function. The higher the selected output, the faster the camper will heat up.

If electricity and gas are selected together, you can set whether gas or electricity is to take priority (**see Tools menu**). The boiler uses no higher output than is required, even if 3 kW has been selected.

1. Starting and changing the different heating levels step by step (**Off, 1 kW, 2 kW or 3 kW**) with "+" or "-". The value set will be displayed on the screen. When activated, the plus icon is shown in green.
2. To switch off the electric heating operation, keep pressing the "-" key until you reach **Off**.



Heating with gas

To activate heating with gas:

If electricity and gas are selected together, you can set whether gas or electricity is to take priority (**see Tools menu**).

1. Start gas operation by pressing on the liquid gas flame. The icon for liquid gas is activated and turns green.
2. To switch off gas operation, press the liquid gas flame. The icon is now blue.



Control panel for preselection timer

10.4 Webasto auxiliary heating



- Set the heating in the vehicle to “warm” before switching on the heating device.
- Set the vehicle's heater fan to the lowest possible level when the heating is in continuous operation. This guarantees an optimally regulated current supply.
- To heat the vehicle quickly, set the fan to a higher level.

Toggle switch motor/cabin



Motor icon pressed:

- The heating device will also heat the vehicle's motor. It is also possible to heat the superstructure.
- Heating is limited to a maximum of 60/120 minutes (if the preselection timer is used: always 60 minutes; if the telestart function is used: select from 10-120 minutes).



Cabin icon pressed:

- The heating device will predominately heat the front area of the superstructure.
- Duration of heating time: unlimited, irrespective of control panel. This enables the heating system to remain in continuous operation, as is customary in a mobile home.



In general, the heating system may also be used while driving, e.g. to supplement the heating for the motor, which may not be sufficient.

Before leaving the mobile home, check whether the heating system should continue to operate while the vehicle is empty. If not, the heating system must be turned off manually.



The control panel can be used to activate the preselection timer. Please refer to the manufacturer's separate operating manual for information on the functions of the preselection timer and further instructions for the heating device.



Super Slim Tower

10.5 Refrigerator

Refrigerators made by Dometic will be installed.

If the external temperature is high, full refrigerating capacity can only be ensured by means of sufficient ventilation. To achieve better ventilation, ensure that the side of the mobile home with the refrigerator ventilation grids stands in the shade (**see Chapter 5.1**).



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



Lock on the (Super)Slim Tower



Lock on the Dometic

Refrigerator door lock



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

Slim-Tower:

- To close the slim tower, pull on the handle, press against the door and then let the handle go.

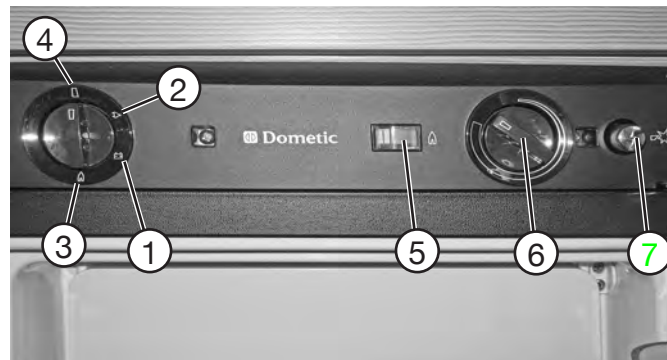
Dometic:

Opening

- Press the push button and pull open the refrigerator door.

Closing

- The refrigerator door has an automatic lock. If the door is closed and pushed firmly it will lock automatically.



Operating the refrigerator

Modes of operation

Three modes of operation are possible for the refrigerator.

The desired mode of operation is set using the energy selection switch.

- 12V operation: power is supplied via the generator ① (motor is on).
- 230 V operation: power is supplied from an external source ②.
- Liquid gas: gas bottles from the mobile home ③.

12 V operation

12 V operation can only be used while driving, when the motor is running. When resting or if you have stopped for a longer period of time, turn off the 12 V operation and, if required, select another mode of operation.

- Turn the energy selector switch to battery operation ①.
- 12V operation will only function if the vehicle's motor is running.
- The refrigerator runs without a thermostatic control (continuous operation). 12 V operation should, therefore, only serve to maintain a temperature which has already been achieved.
- To turn the refrigerator off turn the energy selector switch to the O position ④.

230 V operation

- Turn the energy selector switch to mains ②.
- Use the thermostat ⑥ to regulate the temperature. No absolute temperature values have been assigned to the temperature levels.
- To turn the refrigerator off turn the energy selector switch to the O position ④.

Gas operation

- Turn the energy selector switch to gas operation ③.
- Open the main stop valve on the gas cylinder and the "Refrigerator" gas stop valve.
- Turn the thermostat ⑥ up full and keep it pressed down. The refrigerator will ignite by pressing the button for manual ignition ⑦.

- If gas operation has been activated, then the indicator in the control window will move into the green zone ⑤ (model-specific).
Only release the button when the the indicator is in the green zone.
- Use the thermostat ⑥ to regulate the cooling capacity. No absolute temperature values have been assigned to the temperature levels.
- To turn the refrigerator off turn the energy selector switch to the O position ④
- Close the main stop valve on the gas cylinder and the "Refrigerator" gas stop valve.



It is not permitted to operate the refrigerator with gas

- at petrol stations
- while driving
- while the vehicle is being transported by means of a transport or towing vehicle.

This may cause a fire.

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.

- Goods that might emit readily volatile or flammable gases must not be stored in the refrigerator.
- Always store perishable food directly next to the cooling fins or as close to the bottom of the refrigerator as possible.



It is not suitable for freezing food nor for the proper storage of medication.



Environmental conditions influence the performance of the refrigeration unit. The system reacts sluggishly to changes in the thermostat regulator, loss of cold when opening the door or storing goods. Use the winter cover if the temperature is below +10°C (Dometic accessory).

If the temperature stays above +32°C, an additional fan (Dometic accessory) should be installed

Turn on the refrigerator at least 12 hours before putting anything in it and, if possible, store only goods that have already been cooled.



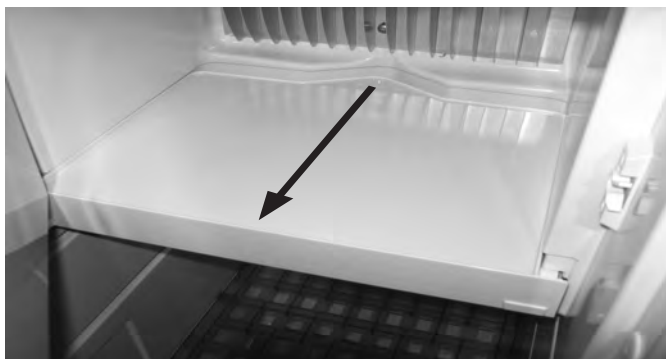
Unlocking the base of the freezer

Removable freezer ((Super) Slim Tower)

To make the best use of space, the freezer can be removed.

To remove the freezer

- Fold down the locking clamps underneath the freezer.
- Push both clamps towards the middle.
- Pull the freezer slightly out.
- Unhinge the door.
- Remove the floor panel of the freezer.



Removing the base of the freezer



Information on removing the freezer is also given on the freezer door.



Normal position



Ventilation position

If not in use for a longer period of time, the refrigerator should be switched to the ventilation position to prevent bad odours.

To activate the ventilation position, light press on the slider ① to pull it forwards.



3-burner gas cooker

10.6 Gas cooker

The kitchen in the motor home is equipped with a gas cooker with three burners.

Before initial operation

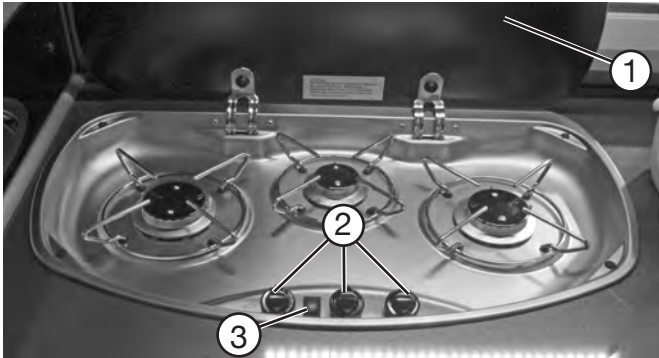
- Open the bottle valve and the quick-action stop valve in the gas pipe.
- Open the skylight or the kitchen window
- Ignition points which must be pressed for ignition when turning on the gas device should spring back to their original position after being pressed.

- The sockets above the cooker may not be used when cooking. Shut the protective caps.



Never use the cooker or other devices extracting combustion air from the interior of the vehicle to heat the vehicle. If this is ignored there is an acute risk to life due to a lack of oxygen and the odourless carbon monoxide which could be generated.

Do not operate the cooker when the glass covering is closed.



Operating elements for gas cooker

Operation

- Use the main switch on the Control Panel to turn on the 12V power supply.
- Open the tinted glass covering ①.
- Turn the adjusting knob ② of the burner you wish to use to the ignition position (large flame), press it and hold it pressed.
- Use the igniter ③ to ignite the flame; keep pressing the igniter ③ until the flame comes on.
- Continue to press the rotary switch ② for a further 5-10 seconds to ensure that the automatic flame guard takes effect.

- Release the rotary switch ② and turn to the desired setting (large or small flame).
- If ignition was unsuccessful, repeat the procedure.
- To turn off the gas flame, turn the rotary switch ② back to the "0" position
- Close the main gas stop valve on the gas cooker.



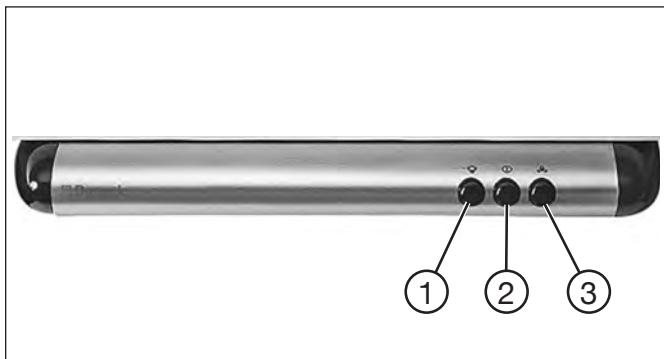
Use oven gloves or potholders when handling hot pots, pans or similar objects. You may be burned!



Never allow gas to escape without burning. Danger of explosion!

After cooking, leave the glass cover ① open until the burners stop giving off heat. Otherwise, the glass cover could burst.

Never store easily flammable objects such as dishcloths, serviettes, etc. near the cooker. Danger of fire!



Fume Hood

10.7 Fume Hood *

The built-in fan blows kitchen odours directly outside.

- ① Light
- ② To switch on
- ③ To set the speed for the fan



Clean the filter of the fume hood regularly, as it collects fat from kitchen odours.



Oven

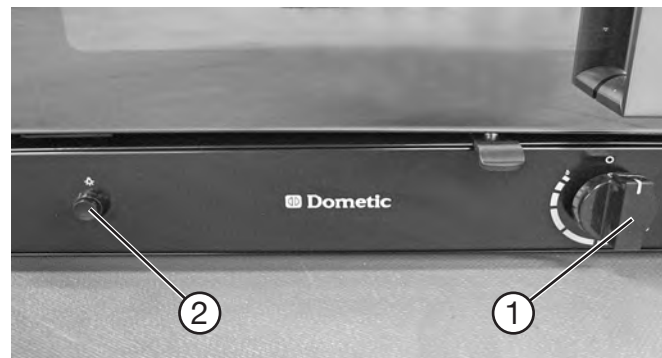
10.8 Oven *



- The ventilation openings on the oven must never be closed.
- A skylight or window must be opened when operating the oven.
- Open the shutoff valve for the oven. Should you smell gas, immediately close the valve and the gas bottles.
- The oven door must remain open while igniting the oven.
- Never operate the oven when it is empty (i.e., without food that is to be heated).
- Never use the oven to heat the motor home.
- Under no circumstances may this device be plugged into the 230V mains!
- Never operate the oven while driving!



Please refer to the separate manufacturer's operating manual.



Operating elements for oven

- Switch on the 12 V power supply using the main switch on the control panel.
- Open the main shutoff valve on the gas bottle and the gas shutoff spigot marked “oven”.
- Open the oven door completely.
- Position the baking tray or grill so that it is not in direct contact with the flame.
- Lightly press on the adjusting knob ① and turn it to the desired ignition position.
- Press the adjustable knob ① . Gas will flow to the burner and the ignition ② will light the flame.
- Keep pressing the adjustable knob ① for 10 seconds until the ignition safety valve keeps the gas supply open.

- Let go of the adjusting knob ① and turn it to the desired temperature. The flame must burn steadily. The colour should be mainly blue and the flame should have a clear outline.
- After approx. one minutes, carefully close the oven door so that the flame does not go out.



- If it has not ignited, repeat this procedure from step 1.
- Should the flame on the burner accidentally be extinguished, turn the switch back to the neutral position and leave the burner off for at least one minute before igniting it again.

Turning off the oven

- Turn the adjustable knob ① to the zero position.
- Close the main shutoff valve on the gas bottle and the gas shutoff spigot marked “oven”.



Rooftop Air Conditioning

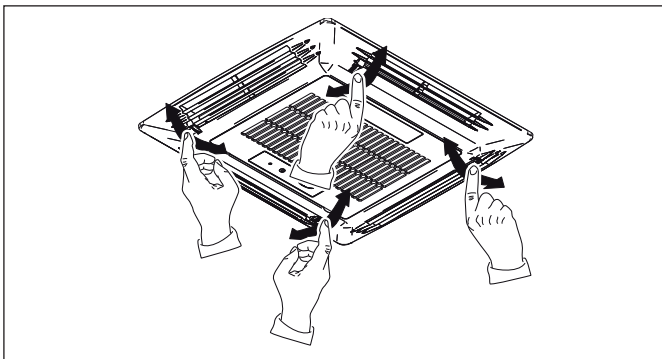
10.9 Rooftop Air Conditioning *

The air conditioner is located instead of the roof window on the living room ceiling.

To operate the air conditioner correctly and optimize its performance, you should observe the following:



- Ensure sound thermal insulation; seal chinks and cover up glass areas.
- Avoid opening doors and windows unnecessarily.
- Do not plug or cover up air intakes and openings.
- Do not spray water into the air conditioner.
- Keep all easily inflammable material away from the system.



To set the direction of ventilation

To set the direction of ventilation

The air supply within the vehicle can be regulated by setting the air nozzles.

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 mobile home 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 mobile home and are not included in the standard scope of delivery, they must be taken into consideration when determining the full load.

Object	Weight[kg]
--------	------------

Base vehicle/Chassis

Comfort-Matic (automatic transmission; cannot be retrofitted)	17.0
Diesel tank, 120 litres instead of 90 litres	28.0
FIAT Ducato 2.3 I - 130 Multijet II, 3,500 kg, FIAT low-frame, 6-gear manual, 2287 ccm, 96 kW/130 PS	15.0
FIAT Ducato 2.3 I - 150 Multijet II, 3,500 kg, FIAT low-frame, 6-gear manual, 2287 ccm, 109 kW/148 PS	15.0
FIAT Ducato 3.0 I - 180 Multijet II, 3,500 kg, FIAT low-frame, 6-gear manual, 2,999 ccm, 130 kW/177	50-65.0 ¹⁾
Fog lights	2.0
Light alloy rims 16" (Original FIAT, not in connection with 115 PS engine)	16.0 ²⁾
Load increased from 3.5 t to 3.65 t without technical changes (the trailer load may possibly be reduced by the load)	0.0
Load increased from 3.5 t to 3.85 t with technical changes, only in connection with 15" rims (the trailer load may possibly be reduced by the load)	10.0
Load increased from light chassis 3.5 t to maxi chassis 4.25 t / 4.40 t (cannot be retrofitted)	40.0
Mud flaps, rear	2.0
Steel rims 16" (not in connection with 115 PS engine)	16.0
Tow coupling	29.0

¹⁾ T70 GE and T75 HGE = 50 kg; all other models 65 kg.

²⁾ Additional weight only when changing from 15" to 16" rims.

Object	Weight[kg]
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Driver's cab

Dashboard with aluminium applications	0.0
Driver's and passenger's seats upholstered in interior fabric	3.0
Painting on driver's cab (different colours)	1.4
REMIS darkening folding system for front and side windows in driver's cab	3.5
Roof window for driver's cab (hinged, cannot be retrofitted)	11.5

Superstructure

Additional side window (various versions)	1.4 - 3.2
Bicycle carrier (also suitable for eBikes)	16.0
Bicycle carrier for 2 bicycles	8.0
Bicycle carrier for 3 bicycles	11.0
Bicycle carrier for 4 bicycles	14.0
Clothes rod at rear end	2.1
DOMETIC-SEITZ roof bonnet Midi-Heki 700 x 500 mm instead of Mini-Heki at rear	4.5
DOMETIC-SEITZ roof bonnet Midi-Heki, electrically driven, instead of Mini-Heki at rear	5.5
Extendable shelf for gas bottle container	14.5
Fastening rails/lashing rings in external storage locker	2.0
Insect screen plissé for entrance door	3.5
Premium superstructure at the rear	35.0
Roof bonnet alcove	3.1
Roof rail incl. rear ladder (includes 2 cross bars)	30.0

Object	Weight[kg]	Object	Weight[kg]
Storage locker flap on driver's side	1.0	Kitchen	
Tail stanchions	6.0	DOMETIC Slim Tower refrigerator, 140 litres, incl. removable	
THULE-OMNISTOR roof awning 260-450 cm, extendable to 250 cm	21.9 - 46.9	12 litre freezer compartment	8.0
Wide entrance door (various versions)	1.0	Fume hood	3.0
		Oven	16.0
Living room		Sleeping area	
Bedsread and decorative pillow	1.5	Additional cushion for converting seating arrangement into a bed	2.0
Entrance cloakroom (salamander leather look)	1.0	Additional upper bed at rear end (for weights up to 75 kg)	17.0
Entrance shoe drawer	1.3	Bed expansion in connection with FROLI comfortable bed system	3.1
Fitted carpet, living room, removable	10.0	Bed expansion incl. add. cushion and ladder	4.8
Leather seating arrangement (cream white or cream white and brown)	2.0	FROLI comfortable bed system (not in alcove beds)	2.7
LED ambient lighting (indirect ceiling and wall lighting)	1.4		
LED clothes cupboard lighting	0.3	Wash room	
LED lighting for entrance handle	0.1	Folding seat in shower	2.1
Upholstery combination, upon request	0.0	Shower partition instead of curtain	4.5
Furniture conversions		Water / gas / electricity	
L-shaped seating arrangement w/ luxury living room table, swivels 360°	15.0	12V/230V sockets in external storage locker	0.5
Low single beds and clothes cupboard at rear end	8.3	2 x USB double charging sockets (1 x living area and 1 x sleeping area)	0.4
Side wall cabinets above beds	7.5	Additional AGM battery 12V / 95 Ah	28.0

Object	Weight[kg]	Object	Weight[kg]
External socket in outer tent, incl. 230 V output, SAT and TV connection	0.4	Extendable shelf for flat screen TV	3.0
Gas socket, external	1.5	LED flat screen 19" incl. tuner/receiver and DVD player	3.0
Outside shower	0.5	Reverse drive video system with colour screen and flat screen	2.0
Remote indicator for DuoControl	0.6	SAT receiver, digital, 12 V	2.0
TRUMA DuoControl incl. crash sensor and de-icer	3.0	TELECO SAT antenna with autom. orientation 65 or 85 cm, 12V / 230V	16.0 / 18.0
TRUMA MonoControl CS (crash sensor)	1.0		
Waste water tank, insulated and heated	4.0		
WiFi control for TFT control panel	0.0		
Wireless alarm system with gas alarm for narcotic gases, propane and butane	1.0		
Heating / air-conditioning			
ALDE hot-water heater Compact-3020	29.0		
Roof air-conditioning system DOMETIC FreshJet incl. CI BUS – possible to omit Heki roof bonnet (with heating function, without lighting)	32.0		
TRUMA heating system Combi 6 E	1.1		
WEBASTO Thermo-Top auxiliary heating system	9.5		
Multimedia			
2 additional loudspeakers in the living area	2.0		
BLAUPUNKT navigation system incl. rear view camera and pitch database	4.5		
CD/radio	2.0		

Chapter 12: Maintenance and Care

12.1 Maintenance

Maintenance intervals

There are stipulated maintenance intervals for the motor home and its equipment.

The following applies for maintenance intervals

- Have the first maintenance carried out by a HOBBY dealer 12 months after the vehicle was first registered.
- All further maintenance should be carried out once a year by a HOBBY dealer.
- The maintenance of the basic vehicle as well as all built-in equipment should be carried out at the intervals given in each operating manual.



Also note the maintenance intervals for the basic Fiat vehicle.

HOBBY grants a 5-year guarantee on the absence of leaks in the caravan in accordance with the guarantee conditions.

To this end, the vehicle must be taken to your HOBBY dealer every 12 months for a chargeable inspection for leak tightness.



The gas fittings must be checked every 2 years by an expert for LPG and confirmed on the certificate in accordance with DVGW G 607 and EN 1949. The operator of the vehicle is responsible for having maintenance carried out on schedule.

Replace the safety regulator for gas at least every 10 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.

Hobby empfiehlt, vor einem Besuch des Servicepartners diesen zu kontaktieren und sich zu erkundigen, ob die benötigten Kapazitäten (z.B. ausreichende Hebebühne) vorhanden sind, um etwaige Missverständnisse zu vermeiden.

12.2 Brakes

The components in the brake system are part of the General Type Approval (“Allgemeinen Betriebserlaubnis“, ABE).

If you change the components in the brake system, the type approval expires. Any changes are only possible if they have been released by the manufacturer.



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

The following applies when maintaining the brake system

- Check the level of brake fluid regularly.
- Check the brake system and brake hoses regularly for leakage. Rodents often gnaw at rubber hoses.
- Use only brake fluids with the same qualities as those fluids already in the brake circuit.



For further information, please refer to the Fiat Ducato operating instructions.

12.3 Changing the taillight bulbs

Siesta/Optima



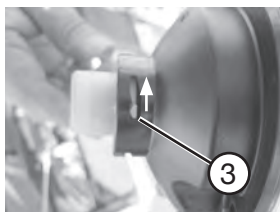
Optima rear light

- Unscrew the two screws ① in the defect lamp.



Removing the cable

- Remove the defect lamp from the lighting support and pull out the cable by pressing the two clamps ② together.



Guiding the pin in the direction of the arrow

- Unscrew the light bulb from the lamp by turning the pin ③ in the direction of the arrow.



Removing the bulb from the socket

- Unscrew the light bulb from the socket ④ and exchange it for a new one.
- Carry out this procedure in reverse to put everything back in place.



If several light bulbs have to be replaced, take care to ensure that the lamps are not switched by accident and that everything goes back in its original place.

Optima with Premium rear end*

The following is a description of how to change the bulbs in the direction indicator (blinker) and rear lights.

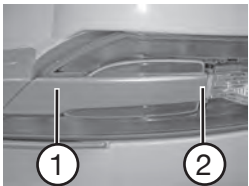


The rear lights in the Premium rear end (optional extra) are fitted with LED lights, whereby each individual light has a standardised alignment. Individual LED lamps may therefore of approving technical reasons not be replaced with a defect, the complete taillight must be replaced.



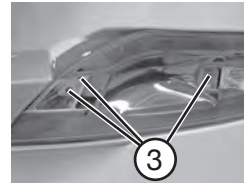
Rear light with LED

Rear light

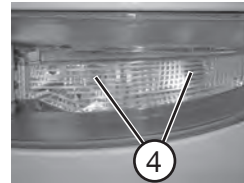


Cover

- To change the bulbs: start by carefully removing the cover ① at the indicated place ② by clipping it out of the retainer.



Unscrewing the screws



Light bulbs

- Then unscrew the 3 screws ③ in order to remove the rear light and expose the bulbs.
- Simply unscrew the defect bulb ④ from the socket and replace it.
- Carry out this procedure in reverse to put everything back in place.

12.4 Airing

For a comfortable climate inside the motor home, there must be sufficient ventilation. This also avoids corrosive damage due to condensation.

Condensation is caused by

- insufficient volume inside the motor home
- breathing and perspiration of the passengers
- bringing in damp clothing
- operating a gas cooker



Ensure that there is a sufficient exchange of air to avoid damages due to the build-up of condensation!

12.5 Care

The following applies for their care:

- Clean plastic parts (e.g. fenders, skirts) with water of up to 60° C and mild household cleansers.
- Clean greasy or oily surfaces with spirits.



Wash the vehicle only in places provided for this purpose.



Using cleaning materials sparingly. Aggressive cleansers, such as wheel rim cleaners, damage the environment.



Use only dishwashing liquid or commercial cleaning agents, always taking care to follow the instructions for use, and test the cleaning agent to make sure it is suitable.

Cleaning products not recommended for use

- abrasive cleaning agents (scratch the surface)
- cleaning agents that contain acetone (immediately damage the plastic)
- dry cleaning products
- diluents

- alcohols
- aggressive or solvent-based cleaners
- cleaners from the chemical group such as ketone, ester and aromatic solvents
- aromatic hydrocarbons (e.g. all automotive fuels)

Direct contact with plastics such as PVC, soft PVC and similar products (e.g. stickers) must be avoided at all cost.

It is not possible to avoid transmitting plasticizers when solvent-based contents come into contact with the aforementioned plastics and this causes the parts to become brittle.

Cleaning the exterior

The vehicle should not be washed more often than necessary.

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 motor home with a high pressure cleaner, study its operating manual carefully. During washing maintain a minimum distance of 700 mm between the motor home and the high pressure cleaner. 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 motor home. The water temperature should not exceed 60°C. Keep the water jet moving while washing. The spray from the high-pressure cleaner must never be pointed directly at the cracks of the doors or windows, acrylic windows, ventilation grills in the refrigerator, service flaps, waste gas flues or skylights. This may damage the vehicle or water could get inside the vehicle.

The following applies when waxing the surfaces

- The varnished surfaces should be treated occasionally with wax. Follow the application instructions given by the wax manufacturers.

The following applies when polishing the surfaces

- In exceptional cases, use polish to refinish weathered varnished surfaces. We recommend solvent-free polishing paste.



Use polish only in special cases and as seldom as possible, because polish removes the top layer of varnish. Frequent polishing causes extreme wear.

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.

Chassis

The undercarriage of the mobile home has been specially coated. If the protective coating is damaged, repair it immediately. Coated areas should not be treated with spray oil.



The combustion air intake duct for the heating system is located underneath the floor of the vehicle. Under no circumstances may liquid sprays, underbody protection or similar products be allowed to interfere with it.

Skylights, windows and doors

Window panes require particularly careful treatment.

The following applies for their care

- Rub the rubber seals around doors and windows lightly with talcum powder.
- Clean acrylic glass panes only with a clean, wet sponge and a soft cloth. Cleaning with a dry cloth may scratch the panes.



Wash panes only with pure water. Never use aggressive cleaning agents that include softeners or solvents!



You will find talcum powder in auto accessory shops.

Cleaning the interior



To reduce problems arising from dampness, use water sparingly when cleaning inside.

The following applies for cushions, upholstery and curtains

- Clean cushions with a soft brush or Hoover.
- Have very dirty upholstery and curtains dry-cleaned. Do not wash them yourself!
- If necessary, wash them carefully using the foam from mild-action detergent.

Cleaning instructions for materials that contain Teflon



- Always treat spots immediately.
- Sponge spots, but do not rub them.
- Work from the edge towards the middle of the spot.
- Never use household cleaners to remove spots.
- Hoover cushions regularly to remove any dirt that may have collected.

We recommend the following methods for cleaning Method A:

- Use only commercial cleaning agents that have a water basis.
- Alternatively, add two tablespoons of ammonia to 1 litre. Dip a cloth into this solution and gently sponge the spot. Turn the cloth over so that you are using a clean cloth to touch the spot.

This method is particularly suitable for removing:

- wine, milk, lemonade
- blood
- biro, ink
- urine, sweat
- mud
- vomit

Method B:

- Use only mild, water-free solvents for dry cleaning.
- Dampen the cloth and proceed as described in method A.

This method is particularly suitable for removing:

- wax, candles
- pencil

Chocolate or coffee should only be washed out with luke-warm water.

The following applies for carpeted floors

- 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.



Never use strong cleansers or intensive furniture polish, because this could scratch the surface!

The following applies for the toilet

- Clean with a neutral liquid cleanser and a cloth that does not scratch.
- Do not use a vinegar concentrate to clean the toilet and the water system or to decalcify the water system. Vinegar concentrate can damage gaskets or parts of the system.

- The rubber seals of the toilet should be cleaned regularly with plain water and a lubricant for seals (not Vaseline or any other vegetable fats) should be applied. Applying this regularly to the washer of the valve and other seals in the toilet will ensure that they stay flexible and function longer.



Do not pour any corrosive substances down the drains. Do not pour boiling water down the drains. Corrosive substances and boiling water damage drain pipes and syphons.

The following applies for the sink and the cooker

- Clean stainless steel parts with normal household cleaners or special stainless steel cleansing agents.

The following applies for built-in equipment

- The glycol mixture in the hot-water heating * system should be replaced every two years, because certain properties such as protection against corrosion deteriorate.
- The space behind the refrigerator should be hoovered and cleaned regularly. The ventilation grille should also be kept clean. The door seal should be rubbed once a year with talcum powder to keep it supple and the expandable fold should be checked for tears.

- The filter in the fume hood* must be cleaned occasionally, because cooking fat collects there. We recommend that you use warm water with a bit of dishwashing liquid to clean it.



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!

Accessories

- If necessary, lubricate leveling supports*.

12.6 Winter Lay Up for the Motor home

For many people, the camping season ends when the temperature starts to fall. Your mobile home must be properly prepared for its winter lay up.

The following general rules apply

- Only leave your mobile home in a closed space if it is dry and well-aired. Otherwise, it is better to leave your motor home in the open.
- To protect the tyres, jack up the mobile home 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 mobile home thoroughly (see 12.5).
- Check the vehicle for damages to the varnish and other damages. If necessary, repair these damages and carry out any other necessary repairs.

- The exterior should be treated with wax or a special polish for varnish.
- Use a protective agent to protect the metal parts of the chassis against rust.
- Check the chassis for damage and, if necessary, repair it.
- Ensure that no water can get into the venting on the floor, heating system and refrigerator venting (mount winter covers^{*}).

The following applies for tanks and containers:

- Clean, disinfect, descale and completely empty all water pipes and faucets. Leave faucets open.
- Clean and empty the fresh water tank (see Chapter 8 Water).
- Clean and empty the waste water tank.
- Clean and empty the toilet flushing tank and the excrement tank. Clean the toilet valve, apply a lubricant for seals and leave it open.
- Completely empty the therme/boiler.
- If your motor home 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 motor home. Hoover carpets, cushions and mattresses. If possible, store them outside the mobile home. 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 in the ventilation position (see **10.6**).
- After cleaning them, leave stowage spaces, cupboards, drawers and furniture flaps open to facilitate air circulation.
- Leave vents for forced ventilation open. If the mobile home is kept in a closed space, you can leave the skylight open.
- Air the mobile home thoroughly every four to six weeks when the weather is dry.
- Set up a dehumidifier (such as salt) inside the motor home and dry the granulate or change it regularly.
- Open the battery's circuit breaker.
- If necessary, heat the camper to prevent the build-up of mould from condensation.
- Switch off the 12 V main switch.

12.7 Winter Operation

Preparations

Your motor home 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 motor home 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 antifreeze 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 motor home. Open stowage spaces, cupboards, drawers, furniture flaps, curtains, shades and plissés. This enables you to achieve optimum ventilation and de-aerating.
- Only heat the motor home when the recirculation air system is switched on.
- Every morning, air all of the cushions, mattresses and stowage spaces and dry any damp spots.
- Air thoroughly with fully opened doors and windows several times a day.
- If the outside temperature is under 8° C, winter covers* should be mounted over the ventilation grilles of the refrigerator.



If, despite all of these measures, condensation forms, simply wipe it away.

Before entering the vehicle, remove the snow from your clothes and shoes to prevent an increase in humidity.

The following applies for heating

- Both the air intake as well as the exhaust gas openings of the heating system must be kept free of snow and ice.
- It takes longer to heat up the vehicle in winter, especially to heat hot water.
- Do not let the interior cool down completely when you are away or at night; set the heating to low and leave it on.



Continue to heat the vehicle while you are sleeping!

- The motor home 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 motor home 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 therme/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 motor home is heated. The excrement tank should be emptied if there is danger of frost.

At the end of the winter season

The following applies for the care of the vehicle

- Thoroughly wash the underbody and the motor. This removes corrosive thawing agents (salts, alkali).
- Clean the exterior and use normal car wax to preserve metal parts.
- Do not forget to remove flue extensions, cover panels on refrigerators, etc.

Saving energy in winter

It is very easy to save energy inside your motor home. 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.
- Install winter mats on the inner sides of the driver's cabin and the windscreen (not included in scope of delivery).
- Attach the insulating mat between the driver's cab and the interior of the motor home (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

It is only natural that owners of motor homes and caravans have a special responsibility for the environment. Always use your vehicle in an environmentally friendly way.



The following applies for environmentally fair use:

- When spending longer periods in towns and cities ask about specially designated campsites for motor homes and use them.
- Do not spoil the peace and cleanliness of nature.
- Dispose of waste water and rubbish in the proper way.
- Set an example so that motor home and caravan drivers are not generally held to be pollutionists.

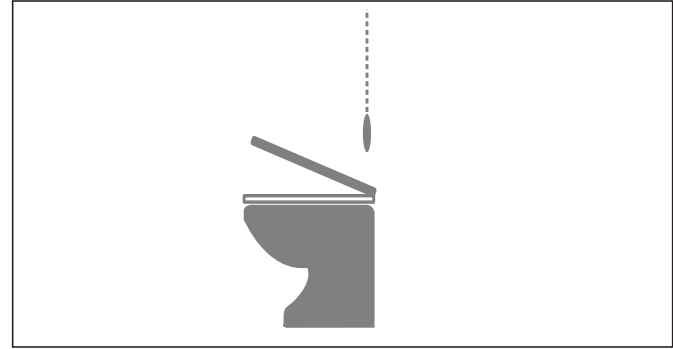


The following applies for waste water:

- Collect waste water on board only in built-in waste water tanks or, if necessary, in suitable containers!
- Never empty waste water in open spaces or down man-holes! Generally, the public waste water system does not run through clarification plants.
- Empty your waste water tank as often as possible, even if it is not completely full (hygiene). If possible, rinse out the waste water tank with fresh water after emptying.



Only empty your waste water tank in special places for waste water disposal, but never in open spaces! Generally, waste water stations are found in motorway service areas, campsites or petrol stations.



The following applies for wastes:

- Only use approved sanitary cleansing products in the waste tank.



You may be able to avoid the use of sanitary liquids by installing an activated carbon filter system (sold as an accessory)!



Use sanitary liquids very sparingly. An overdose is no guarantee of preventing odours!

Sanitation

- Never allow the waste tank to become too full. Empty the tank immediately as soon as the level indicator lights up.
- Never empty wastes down manholes! Generally, the public waste water system does not run through clarification plants.



Empty the waste tank in special places for sanitary disposal, but never in open spaces!



The following applies for waste:

- Separate your waste and put appropriate materials in the recycling bins.
- Empty waste bins as often as possible in the appropriate bins or containers. This prevents unpleasant odours and the problem of collecting rubbish on board.

The following applies for picnic spots:

- Always leave picnic spots clean and tidy, even if you dispose of someone else's waste.
- Do not let the vehicle's engine run unnecessarily while the vehicle is standing still. When the transmission is in neutral, a cold engine generates more harmful emissions. The quickest way for the engine to reach its operating temperature is while driving.



Careful use of the environment is not only in the interest of nature, but also of motor home and caravan drivers everywhere!

13.2 Returning the vehicle

If you should ever have to give up your motor home 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 motor home must be taken back free of charge by any Fiat dealer and expertly recycled.

Chapter 14: Technical Data

14.1 Chassis Data

Hobby Modell	Model	Type	Base vehicle	Motorisation ⁵⁾ Model	exhaust gas emissions	Chassis	Frame extension	Towbar Sawiko				
								Type	Reinforcement	Rear crossbar	Trailer coupling	Spherical head
Optima series version												
V60 GF	Optima Van	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	---	MT026i	---	---	30PEI20022-P	Typ 04 (3009000400)
V65 GE	Optima Van	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	40P0400000 lowered	MT030i	31TEV4004P	31TE14005P	---	Typ 05 (3009000500)
T60 H	Optima	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	---	MT026i	---	---	30PEI20022-P	Typ 04 (3009000400)
T65 GE	Optima	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	40P1200000 lowered	MT030i	31TEV4012P	31TE14003P	---	Typ 05 (3009000500)
T65 FL	Optima	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	40P0400000 lowered	MT030i	31TEV4004P	31TE14005P	---	Typ 05 (3009000500)
T65 HFL	Optima	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	40P0400000 lowered	MT030i	31TEV4004P	31TE14005P	---	Typ 05 (3009000500)
T70 HQ	Optima	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	40P1500000 lowered	MT030i	31TEV4015P	31TE15003P	---	Typ 05 (3009000500)
T70 GE	Optima	F3	Ducato Light	130 Multijet (96 kW)	Euro 5b+	Serien-Tiefrahmen	40P1300000 lowered	MT030i	31TEV4013P	31TE14003P	---	Typ 05 (3009000500)
T70 E	Optima	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	39P0100000 straight	MT026G	31PEV39000	31PE13901P	---	Typ 04 (3009000400)
T75 HGE	Optima	F3	Ducato Light	130 Multijet (96 kW)	Euro 5b+	Serien-Tiefrahmen	40P1400000 lowered	MT030i	31TEV4014P	31TE14003P	---	Typ 05 (3009000500)

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

- 1) Trailer load for technically permitted gross vehicle weight of 3,650 and 3850 kg is reduced to 1,900 kg; for technically permitted gross vehicle weight of 4,250 kg it is reduced to 1,800 kg, for technically permitted gross vehicle weight of 4,400 kg to 1,750 kg.
- 2) without wing mirror, without side blinker
- 3) tow coupling is a special accessory
- 4) rear edge of traction unit to rear edge of back wall
- 5) FIAT: 115 Multijet: 85 kW (115 PS); 130 Multijet: 96 kW (130 PS); 150 Multijet: 109 kW (148 PS); 180 Multijet: 130 kW (177 PS)

VELO holding fixture	Seats	t.p.o.w. [kg]	Permiss. front axle load	Permiss. rear axle load	Unbraked trailer load ³⁾	Braked trailer load ³⁾	Max. permissible drawbar load ³⁾	Maximum towing weight	Length of super-structure ⁴⁾	Total length	Height	Width ²⁾	Front tread width	Rear tread width	Wheel base	Front projection	Rear projection
Optima series version																	
21PE02022P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	3601	5999	2775	2160	1810	1790	3800	948	1251
21TE04004P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	4306	6734	2775	2160	1810	1790	3800	948	1986
21PE02022P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	3607	5999	2775	2330	1810	1980	4035	948	1016
21TE04012P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	4606	7034	2775	2330	1810	1980	4035	948	2051
21TE04004P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	4557	6984	2775	2330	1810	1980	4035	948	2001
21TE04004P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	4557	6984	2775	2330	1810	1980	4035	948	2001
21TE04015P	3	3500	1850	2000	750	2000 ¹⁾	80	5500	4953	7380	2775	2330	1810	1980	4035	948	2397
21TE04013P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	4953	7380	2775	2330	1810	1980	4300	948	2132
21PE01001P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	4953	7380	2775	2330	1810	1980	4035	948	2397
21TE04014P	3	3500	1850	2000	750	2000 ¹⁾	80	5500	5073	7500	2775	2330	1810	1980	4300	948	2252

Hobby Modell	Model	Type	Base vehicle	Motorisation ⁵⁾ Model	exhaust gas emissions	Chassis	Frame extension	Towbar Sawiko				
								Type	Reinforcement	Rear crossbar	Trailer coupling	Spherical head
Optima with special request Premium Heck												
V65 GE	Optima Van	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	40P1700000 lowered	MT030i	31TEV4017P	31TE14002P	---	Typ 04 (3009000400)
T65 GE	Optima	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	40P1800000 lowered	MT030i	31TEV4018P	31TE14001P	---	Typ 04 (3009000400)
T70 HQ	Optima	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	40P1900000 lowered	MT030i	31TEV4019P	31TE14001P	---	Typ 04 (3009000400)
T70 GE	Optima	F3	Ducato Light	130 Multijet (96 kW)	Euro 5b+	Serien-Tiefrahmen	40P1600000 lowered	MT030i	31TEV4016P	31TE14001P	---	Typ 04 (3009000400)
T70 E	Optima	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	39P0100000 straight	MT026G	31PEV39000	31PE13901P	---	Typ 04 (3009000400)
T75 HGE	Optima	F3	Ducato Light	130 Multijet (96 kW)	Euro 5b+	Serien-Tiefrahmen	40P2000000 lowered	MT030i	31TEV4020P	31TE14001P	---	Typ 04 (3009000400)
A55 GS	Siesta	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	---	MT026i	---	---	30PEI20022-P	Typ 04 (3009000400)
A65 GM	Siesta	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	40P0700000 lowered	MT030i	31TEV4007P	31TE14005P	---	Typ 05 (3009000500)
A70 GM	Siesta	F3	Ducato Light	115 Multijet (85 kW)	Euro 5b+	Serien-Tiefrahmen	40P0400000 lowered	MT030i	31TEV4004P	31TE14003P	---	Typ 05 (3009000500)

All measurements in [mm]

all weights in [kg]

1) Trailer load for technically permitted gross vehicle weight of 3,650 and 3850 kg is reduced to 1,900 kg; for technically permitted gross vehicle weight of 4,250 kg it is reduced to 1,800 kg, for technically permitted gross vehicle weight of 4,400 kg to 1,750 kg.

2) without wing mirror, without side blinker

3) tow coupling is a special accessory

4) rear edge of traction unit to rear edge of back wall

5) FIAT: 115 Multijet: 85 kW (115 PS); 130 Multijet: 96 kW (130 PS); 150 Multijet: 109 kW (148 PS); 180 Multijet: 130 kW (177 PS)

VELO holding fixture	Seats	t.p.o.w. [kg]	Permiss. front axle load	Permiss. rear axle load	Unbraked trailer load ³⁾	Braked trailer load ³⁾	Max. permissible drawbar load ³⁾	Maximum towing weight	Length of super- structure ⁴⁾	Total length	Height	Width ²⁾	Front tread width	Rear tread width	Wheel base	Front projec- tion	Rear projec- tion
Optima with special request Premium Heck																	
21TE04017P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	4306	6798	2775	2160	1810	1790	3800	948	2050
21TE04018P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	4606	7098	2775	2330	1810	1980	4035	948	2115
21TE04019P	3	3500	1850	2000	750	2000 ¹⁾	80	5500	4953	7444	2775	2330	1810	1980	4035	948	2461
21TE04016P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	4953	7444	2775	2330	1810	1980	4300	948	2196
21PE01001P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	4953	7444	2775	2330	1810	1980	4035	948	2461
21TE04020P	3	3500	1850	2000	750	2000 ¹⁾	80	5500	5073	7564	2775	2330	1810	1980	4300	948	2316
21PE02022P	4	3500	1850	2000	750	2000 ¹⁾	80	5500	3200	5638	3070	2340	1810	1980	3450	948	1240
21TE04007P	6	3500	1850	2000	750	2000 ¹⁾	80	5500	4052	6490	3070	2340	1810	1980	4035	948	1507
21TE04004P	5	3500	1850	2000	750	2000 ¹⁾	80	5500	4552	6990	3070	2340	1810	1980	4035	948	2007

14.2 Load increased

Hobby Model	Model	Type	Base vehicle	Seats	t.p.o.w. [kg]	Permissible front axle load	Permiss. rear axle load	Unbraked trailer load ²⁾	Braked trailer load ²⁾	Max. permissible drawbar load ²⁾	Maximum towing weight
FIAT Ducato X290											
V60 GF	Optima Van	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550
V65 GE	Optima Van	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550
T60 H	Optima	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550
T65 GE	Optima	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550
T65 FL	Optima	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550
T65 HFL	Optima	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550
T70 HQ	Optima	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550
T70 GE	Optima	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550
T70 E	Optima	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550
T75 HGE	Optima	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550

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

1) without wing mirror, without side blinker

2) tow coupling is a special accessory

3) rear edge of traction unit to rear edge of back wall

Load increased for Fiat Ducato to 3650 kg without technical changes

Ducato load increased to 3,850 kg by means of additional Goldschmitt laminated spring on the rear axle (permissible only in connection with 15" metal wheel rims; not possible in connection with motorisation 85 kW)

Load increased for Fiat Ducato with low-frame chassis to 4250/4400 kg by means of a maxi chassis (cannot be combined with 115 PS; 4,400 kg only for 177 PS)

Length of super-structure ³⁾	Total length	Height	Width ¹⁾	Front tread width	Rear tread width	Wheel base	Front projection	Rear projection
3601	5999	2775	2160	1810	1790	3800	948	1251
4306	6734	2775	2160	1810	1790	3800	948	1986
3607	5999	2775	2330	1810	1980	4035	948	1016
4606	7034	2775	2330	1810	1980	4035	948	2051
4557	6984	2775	2330	1810	1980	4035	948	2001
4557	6984	2775	2330	1810	1980	4035	948	2001
4953	7380	2775	2330	1810	1980	4035	948	2397
4953	7380	2775	2330	1810	1980	4300	948	2132
4953	7380	2775	2330	1810	1980	4035	948	2397
5073	7500	2775	2330	1810	1980	4300	948	2252

Hobby Model	Model	Type	Base vehicle	Seats	t.p.o.w. [kg]	Permissible front axle load	Permiss. rear axle load	Unbraked trailer load ²⁾	Braked trailer load ²⁾	Max. permissible drawbar load ²⁾	Maximum towing weight
FIAT Ducato X290											
V60 GF	Optima Van	F3	Ducato Light	4	3850	1850	2060	750	1900	80	5750
V65 GE	Optima Van	F3	Ducato Light	4	3850	1850	2060	750	1900	80	5750
T60 H	Optima	F3	Ducato Light	4	3850	1850	2060	750	1900	80	5750
T65 GE	Optima	F3	Ducato Light	4	3850	1850	2060	750	1900	80	5750
T65 FL	Optima	F3	Ducato Light	4	3850	1850	2060	750	1900	80	5750
T65 HFL	Optima	F3	Ducato Light	4	3850	1850	2060	750	1900	80	5750
T70 HQ	Optima	F3	Ducato Light	4	3850	1850	2060	750	1900	80	5750
T70 GE	Optima	F3	Ducato Light	4	3850	1850	2060	750	1900	80	5750
T70 E	Optima	F3	Ducato Light	4	3850	1850	2060	750	1900	80	5750
T75 HGE	Optima	F3	Ducato Light	4	3850	1850	2060	750	1900	80	5750

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

1) without wing mirror, without side blinker

2) tow coupling is a special accessory

3) rear edge of traction unit to rear edge of back wall

Load increased for Fiat Ducato to 3650 kg without technical changes

Ducato load increased to 3,850 kg by means of additional Goldschmitt laminated spring on the rear axle (permissible only in connection with 15" metal wheel rims; not possible in connection with motorisation 85 kW)

Load increased for Fiat Ducato with low-frame chassis to 4250/4400 kg by means of a maxi chassis (cannot be combined with 115 PS; 4,400 kg only for 177 PS)

Length of super-structure ³⁾	Total length	Height	Width ¹⁾	Front tread width	Rear tread width	Wheel base	Front projection	Rear projection
3601	5999	2775	2160	1810	1790	3800	948	1251
4306	6734	2775	2160	1810	1790	3800	948	1986
3607	5999	2775	2330	1810	1980	4035	948	1016
4606	7034	2775	2330	1810	1980	4035	948	2051
4557	6984	2775	2330	1810	1980	4035	948	2001
4557	6984	2775	2330	1810	1980	4035	948	2001
4953	7380	2775	2330	1810	1980	4035	948	2397
4953	7380	2775	2330	1810	1980	4300	948	2132
4953	7380	2775	2330	1810	1980	4035	948	2397
5073	7500	2775	2330	1810	1980	4300	948	2252

Hobby Model	Model	Type	Base vehicle	Seats	t.p.o.w. [kg]	Permissible front axle load	Permiss. rear axle load	Unbraked trailer load ²⁾	Braked trailer load ²⁾	Max. permissible drawbar load ²⁾	Maximum towing weight
FIAT Ducato X290											
V60 GF	Optima Van	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050
V65 GE	Optima Van	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050
T60 H	Optima	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050
T65 GE	Optima	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050
T65 FL	Optima	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050
T65 HFL	Optima	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050
T70 HQ	Optima	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050
T70 GE	Optima	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050
T70 E	Optima	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050
T75 HGE	Optima	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050

All measurements in [mm]

all weights in [kg]

1) without wing mirror, without side blinker**2)** tow coupling is a special accessory**3)** rear edge of traction unit to rear edge of back wall

Load increased for Fiat Ducato to 3650 kg without technical changes

Ducato load increased to 3,850 kg by means of additional Goldschmitt laminated spring on the rear axle (permissible only in connection with 15" metal wheel rims; not possible in connection with motorisation 85 kW)

Load increased for Fiat Ducato with low-frame chassis to 4250/4400 kg by means of a maxi chassis (cannot be combined with 115 PS; 4,400 kg only for 177 PS)

Length of super-structure ³⁾	Total length	Height	Width ¹⁾	Front tread width	Rear tread width	Wheel base	Front projection	Rear projection
3601	5999	2802	2160	1810	1790	3800	948	1251
4306	6734	2802	2160	1810	1790	3800	948	1986
3607	5999	2802	2330	1810	1980	4035	948	1016
4606	7034	2802	2330	1810	1980	4035	948	2051
4557	6984	2802	2330	1810	1980	4035	948	2001
4557	6984	2802	2330	1810	1980	4035	948	2001
4953	7380	2802	2330	1810	1980	4035	948	2397
4953	7380	2802	2330	1810	1980	4300	948	2132
4953	7380	2802	2330	1810	1980	4035	948	2397
5073	7500	2802	2330	1810	1980	4300	948	2252

Hobby Model	Model	Type	Base vehicle	Seats	t.p.o.w. [kg]	Permissible front axle load	Permiss. rear axle load	Unbraked trailer load ²⁾	Braked trailer load ²⁾	Max. permissible drawbar load ²⁾	Maximum towing weight
FIAT Ducato X290											
V60 GF	Optima Van	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150
V65 GE	Optima Van	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150
T60 H	Optima	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150
T65 GE	Optima	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150
T65 FL	Optima	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150
T65 HFL	Optima	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150
T70 HQ	Optima	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150
T70 GE	Optima	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150
T70 E	Optima	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150
T75 HGE	Optima	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150

All measurements in [mm]

all weights in [kg]

- 1) without wing mirror, without side blinker

2) tow coupling is a special accessory

3) rear edge of traction unit to rear edge of back wall
- Load increased for Fiat Ducato to 3650 kg without technical changes

Ducato load increased to 3,850 kg by means of additional Goldschmitt laminated spring on the rear axle (permissible only in connection with 15" metal wheel rims; not possible in connection with motorisation 85 kW)

Load increased for Fiat Ducato with low-frame chassis to 4250/4400 kg by means of a maxi chassis (cannot be combined with 115 PS; 4,400 kg only for 177 PS)

Length of super-structure ³⁾	Total length	Height	Width ¹⁾	Front tread width	Rear tread width	Wheel base	Front projection	Rear projection
3601	5999	2802	2160	1810	1790	3800	948	1251
4306	6734	2802	2160	1810	1790	3800	948	1986
3607	5999	2802	2330	1810	1980	4035	948	1016
4606	7034	2802	2330	1810	1980	4035	948	2051
4557	6984	2802	2330	1810	1980	4035	948	2001
4557	6984	2802	2330	1810	1980	4035	948	2001
4953	7380	2802	2330	1810	1980	4035	948	2397
4953	7380	2802	2330	1810	1980	4300	948	2132
4953	7380	2802	2330	1810	1980	4035	948	2397
5073	7500	2802	2330	1810	1980	4300	948	2252

Hobby Model	Model	Type	Base vehicle	Seats	t.p.o.w. [kg]	Permissible front axle load	Permiss. rear axle load	Unbraked trailer load ²⁾	Braked trailer load ²⁾	Max. permissible drawbar load ²⁾	Maximum towing weight
FIAT Ducato X290											
A55 GS	Siesta	F3	Ducato Light	4	3650	1850	2000	750	1900	80	5550
A65 GM	Siesta	F3	Ducato Light	6	3650	1850	2000	750	1900	80	5550
A70 GM	Siesta	F3	Ducato Light	6	3650	1850	2000	750	1900	80	5550
A55 GS	Siesta	F3	Ducato Light	4	3850	1850	2060	750	1900	80	5750
A65 GM	Siesta	F3	Ducato Light	6	3850	1850	2060	750	1900	80	5750
A70 GM	Siesta	F3	Ducato Light	6	3850	1850	2060	750	1900	80	5750
A55 GS	Siesta	F3	Ducato Maxi	4	4250	2100	2400	750	1800	80	6050
A65 GM	Siesta	F3	Ducato Maxi	6	4250	2100	2400	750	1800	80	6050
A70 GM	Siesta	F3	Ducato Maxi	6	4250	2100	2400	750	1800	80	6050
A55 GS	Siesta	F3	Ducato Maxi	4	4400	2100	2500	750	1750	80	6150
A65 GM	Siesta	F3	Ducato Maxi	6	4400	2100	2500	750	1750	80	6150
A70 GM	Siesta	F3	Ducato Maxi	6	4400	2100	2500	750	1750	80	6150

All measurements in [mm]

all weights in [kg]

1) without wing mirror, without side blinker**2)** tow coupling is a special accessory**3)** rear edge of traction unit to rear edge of back wall

Load increased for Fiat Ducato to 3650 kg without technical changes

Ducato load increased to 3,850 kg by means of additional Goldschmitt laminated spring on the rear axle (permissible only in connection with 15" metal wheel rims; not possible in connection with motorisation 85 kW)

Load increased for Fiat Ducato with low-frame chassis to 4250/4400 kg by means of a maxi chassis (cannot be combined with 115 PS; 4,400 kg only for 177 PS)

Length of super-structure ³⁾	Total length	Height	Width ¹⁾	Front tread width	Rear tread width	Wheel base	Front projection	Rear projection
3200	5638	3070	2340	1810	1980	3450	948	1240
4052	6490	3070	2340	1810	1980	4035	948	1507
4552	6990	3070	2340	1810	1980	4035	948	2007
3200	5638	3070	2340	1810	1980	3450	948	1240
4052	6490	3070	2340	1810	1980	4035	948	1507
4552	6990	3070	2340	1810	1980	4035	948	2007
3200	5638	3097	2340	1810	1980	3450	948	1240
4052	6490	3097	2340	1810	1980	4035	948	1507
4552	6990	3097	2340	1810	1980	4035	948	2007
3200	5638	3097	2340	1810	1980	3450	948	1240
4052	6490	3097	2340	1810	1980	4035	948	1507
4552	6990	3097	2340	1810	1980	4035	948	2007

14.3 Vehicle and equipment weights

Model	Series	Weight of basic vehicle	Driver	Diesel [kg]	Unladen weight [kg]	Basic equipment	Packages	Mass when vehicle is ready to start	t.p.o.w. [kg]	Overload weight
FIAT Ducato X290										
V60 GF	Optima Van	2448	75	69	2592	127	---	2719	3500	781
V65 GE	Optima Van	2555	75	69	2699	127	---	2826	3500	674
T60 H	Optima	2559	75	69	2703	127	---	2830	3500	670
T65 GE	Optima	2664	75	69	2808	127	---	2935	3500	565
T65 FL	Optima	2667	75	69	2811	127	---	2938	3500	562
T65 HFL	Optima	2730	75	69	2874	127	---	3001	3500	499
T70 HQ	Optima	2815	75	69	2959	127	---	3086	3500	414
T70 GE	Optima	2779	75	69	2923	127	---	3050	3500	450
T70 E	Optima	2785	75	69	2929	127	---	3056	3500	444
T75 HGE	Optima	2849	75	69	2993	127	---	3120	3500	380
V60 GF	Optima Van De Luxe	2448	75	69	2592	127	107	2826	3500	674
V65 GE	Optima Van De Luxe	2555	75	69	2699	127	126	2952	3500	548
T60 H	Optima De Luxe	2559	75	69	2703	127	115	2945	3500	555
T65 GE	Optima De Luxe	2664	75	69	2808	127	129	3064	3500	436
T65 FL	Optima De Luxe	2667	75	69	2811	127	126	3064	3500	436
T65 HFL	Optima De Luxe	2730	75	69	2874	127	126	3127	3500	373
T70 HQ	Optima De Luxe	2815	75	69	2959	127	120	3206	3500	294
T70 GE	Optima De Luxe	2779	75	69	2923	127	131	3181	3500	319
T70 E	Optima De Luxe	2785	75	69	2929	127	128	3184	3500	316
T75 HGE	Optima De Luxe	2849	75	69	2993	127	132	3252	3500	248

Model	Series	Weight of basic vehicle	Driver	Diesel [kg]	Unladen weight [kg]	Basic equipment	Packages	Mass when vehicle is ready to start	t.p.o.w. [kg]	Overload weight
FIAT Ducato X290										
V65 GE	Optima Van D. L. Premium	2555	75	69	2699	127	161	2987	3500	513
T65 GE	Optima De Luxe Premium	2664	75	69	2808	127	164	3099	3500	401
T70 HQ	Optima De Luxe Premium	2815	75	69	2959	127	155	3241	3500	259
T70 GE	Optima De Luxe Premium	2779	75	69	2923	127	166	3216	3500	284
T70 E	Optima De Luxe Premium	2785	75	69	2929	127	163	3219	3500	281
T75 HGE	Optima De Luxe Premium	2849	75	69	2993	127	167	3287	3500	213
A55 GS	Siesta	2513	75	69	2657	127	---	2784	3500	716
A65 GM	Siesta	2693	75	69	2837	127	---	2964	3500	536
A70 GM	Siesta	2757	75	69	2901	127	---	3028	3500	472
A55 GS	Siesta De Luxe	2513	75	69	2657	127	87	2871	3500	629
A65 GM	Siesta De Luxe	2693	75	69	2837	127	105	3051	3500	449
A70 GM	Siesta De Luxe	2757	75	69	2901	127	109	3115	3500	385

14.4 Tyres and rims for motor homes

Lightchassis					Series		Optional extra ¹⁾		
Hobby Model	Series	t.p.o.w. [kg]	Perm. axle load front	Perm. axle load rear	Tyre size	Metal wheel rim ²⁾	Tyre size	Metal wheel rim, optionally alloy wheel rim	Wheel attachment [*]
FIAT Ducato X290									
V60 GF	Optima Van	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
V65 GE	Optima Van	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
T60 H	Optima	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
T65 GE	Optima	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
T65 FL	Optima	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
T65 HFL	Optima	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
T70 HQ	Optima	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
T70 GE	Optima	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
T70 E	Optima	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
T75 HGE	Optima	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
A55 GS	Siesta	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
A65 GM	Siesta	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118
A70 GM	Siesta	3500 / 3650 / 3850	1850	2000 / 2000 / 2060 ²⁾	215/70 R 15 CP	6 J x 15, ET 68	225/75 R 16 CP	6 J x 16, ET 68	5 / 71 / 118

¹⁾ not in connection with motorisation 115 PS

²⁾ Li mind. 113

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

Tyres and rims for loaded motor homes

Maxi chassis (increased load)

Hobby Model	Series	t.p.o.w. [kg]	Perm. axle load front	Perm. axle load rear	Tyre size	Metal wheel rim, optionally alloy wheel rim	Wheel attachment*
FIAT Ducato X290							
V60 GF	Optima Van	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130
V65 GE	Optima Van	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130
T60 H	Optima	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130
T65 GE	Optima	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130
T65 FL	Optima	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130
T65 HFL	Optima	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130
T70 HQ	Optima	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130
T70 GE	Optima	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130
T70 E	Optima	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130
T75 HGE	Optima	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130
A55 GS	Siesta	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130
A65 GM	Siesta	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130
A70 GM	Siesta	4250 / 4400	2100	2400 / 2500	225/75 R 16 CP	6 J x 16, ET 68	5 / 78 / 130

14.5 Tyre pressure values

Motor homes		
Tyres	Tyre pressure (bar)	Basis
Camping tyres (CP)		
215/70 R 15 CP	front: 5,0 rear: 5,5	FIAT
225/75 R 16 CP	front: 5,5 rear: 5,5	FIAT
Standard and winter tyres (C)		
215/70 R 15 C	front: 4,0 rear: 4,5	FIAT
225/70 R 15 C	front: 4,3 rear: 4,75	FIAT
225/75 R 16 C	front: 5,2 rear: 5,2	FIAT

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