

Instruction manual

KARMANN



12.2006

Ontario

Congratulations on your new Karmann-Mobil motorhome.

You have made the right decision, for Karmann has been building motorhomes for more than 100 years. That means quality and reliability. And that is why Karmann is mentioned in the same breath as the best automobile brands.

We don't simply put any body on any chassis. On the contrary: Safe handling can only be achieved if a first-class chassis from an excellent manufacturer is given a body which is perfectly adapted to it, a body from Karmann-Mobil.

And what about service and replacement parts? Who wants to get stuck somewhere with a broken windscreen? A network of selected partners will make sure that fast help is available everywhere.

Karmann-Mobil is synonymous with quality, reliability and pleasure for many years ahead.
We wish you a safe and happy journey.

Your Karmann-Mobil Vertriebs GmbH

This instruction manual contains important notes for operation and care of your mobile home as well as for use of its equipment. Page 2-2 provides an overview of all instructions and papers which accompany your motorhome.

The many practical tips included in it are intended to make it easy for you to use your Karmann-Mobil motorhome in the best way possible, safely and in an environmentally friendly way.

In the interests of safety, please read the information regarding use of the gas equipment and the 230 Volt vehicle electrical supply system.

You will find all general information regarding operation and handling of your vehicle in the operating instructions for the basic chassis.

Caution

Sections introduced by the word "Caution" and with a coloured background indicate possible sources of accident, injury or damage.



Sections with this symbol written in italics offer important information on environmental protection.

Location:

Notes that are outlined in blue indicate the location of the described component and are intended to provide quick orientation.

If you wish to equip your motorhome with special accessories such as bicycle, ski or surfboard racks or awnings, you should take advantage of the range on offer from Karmann Mobil dealers.

These accessories have been especially developed for your vehicle and tested for reliability, safety and suitability - please also note the instructions regarding the basic chassis.

Detailed assembly and operation instructions are of course included with these accessories.

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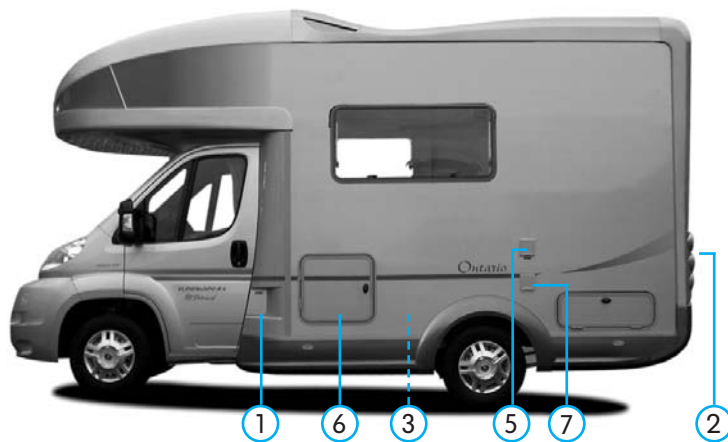
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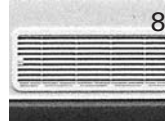
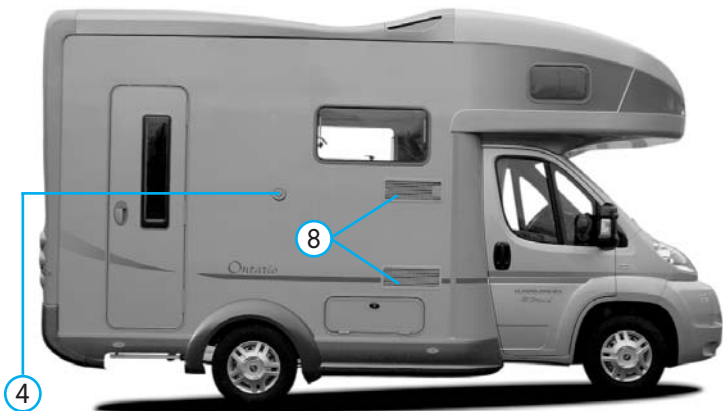
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Exterior



1 Fuel filler cap

6 Gas cylinder box
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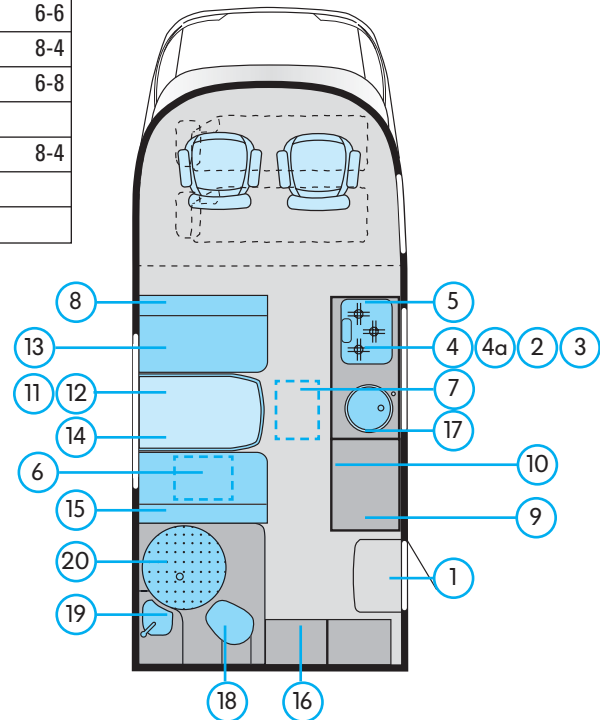
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This list gives you an initial overview of the important components in your motorhome. More detailed information can be found in the relevant chapters.

Exterior



1

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7

2

4

3

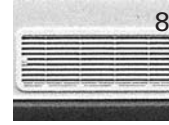


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1 Fuel filler cap

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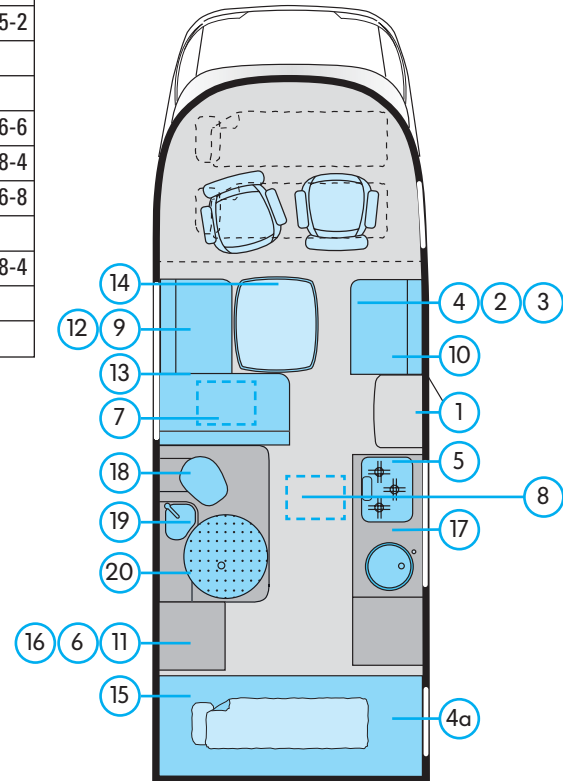
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Interior

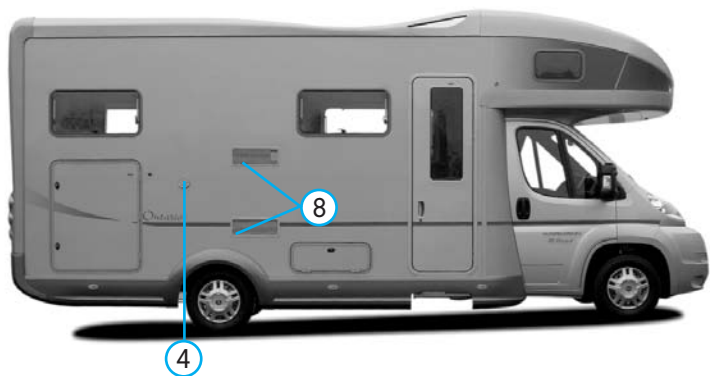
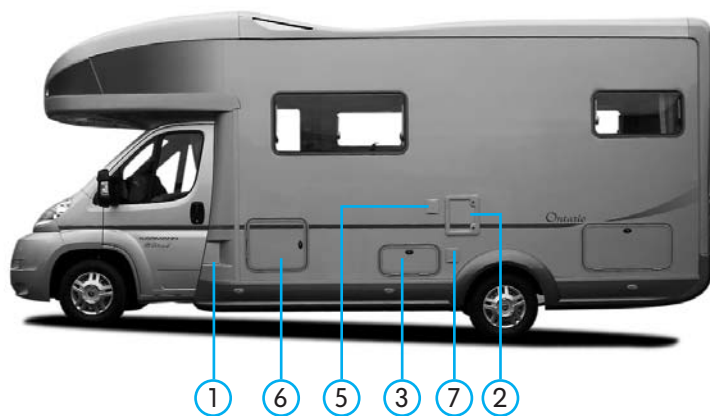
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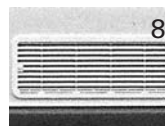


This list gives you an initial overview of the important components in your motorhome. More detailed information can be found in the relevant chapters.

Exterior



1 Fuel filler cap

2 Sewage tank
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discharge tap/
discharge fitting
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heating system5 Freshwater
filler nozzle
Page 8-16 Gas cylinder
box
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Proper usage

The vehicle is only to be used as a motorhome for non-commercial transportation of persons and personal luggage. It is suitable for use on public roadways in compliance with traffic safety laws and road traffic licensing regulations. The living furnishings of the vehicle should only be used when the vehicle is standing still.

The motorhome should not be used for hauling goods or for commercial transportation of persons. The permissible number of passengers, the permissible total weight of the vehicle and the permissible axle loads should not be exceeded. During travel, all passengers should be seated in seats equipped with belts and these belts should be fastened. The use of the vehicle's interior furnishings, in particular of the installed devices and systems, is not permitted during travel.

Any other use of the vehicle is prohibited and is considered improper usage. Neither the manufacturer nor its officers, representatives and dealers shall be held liable for damages resulting from improper use of the motorhome.

The owner alone shall be responsible for all damages resulting from improper usage.

Proper usage also includes compliance with the operating, maintenance and cleaning instructions of the installed devices and systems.

Owner responsibility

The owner of the motorhome is responsible for keeping the motorhome in good condition both technically and as regards traffic safety. This especially includes compliance with the operating instructions for the base vehicle and adherence to the maintenance intervals specified in these instructions. The owner has to subject the motorhome to regular inspections in time as stipulated by law. These inspections include:

- Vehicle inspection according to legal stipulations
- Inspection of gas equipment by an authorized specialist shop

The owner is responsible for informing himself or herself of current laws and regulations on an ongoing basis, which entail further obligations.

Scope of these instructions

These instructions are intended to serve the purpose of quickly finding general information associated with the use and maintenance of your motorhome. In addition to this, it contains important notes on safety and accident prevention. Designations such as "front", "back", "left" and "right" are based on the direction of travel unless stated otherwise. All measures and weights are approximate. Descriptions and illustrations could vary slightly from the actual design. The individual operating instructions and documents pertaining to the installed components have priority over these instructions. In case of questions, please contact an authorized Karmann-Mobil dealer or Karmann-Mobil directly.

Corresponding documents

A document folder containing all documentation for your motorhome is included with the purchase of the vehicle.

This documentation consists of these instructions and the operating instructions and documents of the installed components. Check to make sure you have obtained all of the documents listed below. Please contact Karmann-Mobil immediately if you are missing any of the documents.

Karmann-Mobil documents

- These operating instructions for your motorhome
- Superstructure and leak tightness warranty with inspection forms and weight card
- Test certificate for gas
- The Karmann-Mobil warranty booklet

Documents pertaining to the base vehicle and the installed devices

- Operating instructions for the base vehicle in the glove compartment (warranty booklet from the base vehicle manufacturer)
- Assembly and operating instructions
- Liquid gas regulator
- Installation and operation manual for the "SHURflo" freshwater pump

- Operating instructions for the control panel and the "cbe" distribution module
- Operating instructions for the "Thetford Cassette" chemical toilette
- Instructions for use for the "Trumatic C"
- Warranty and information note for "Truma" heater with boiler"
- Operating/installation instructions of "Dometic" absorber fridge
- Installation - use - maintenance of "SMEV" cooker
- Operating instructions for "Dometic" roof

Additional documents (optional accessories)

- Instructions for use for SecuMotion
- 12 V/230 Volt air condition unit
- Automatic speed regulator
- Rear-view video system
- Coupling device
- Manual/automatic satellite antennae with satellite receiver
- Solar system
- Awning
- Motorbike platform
- Oven
- Micro oven
- Allow wheels
- Additional documents for special installations

Please also adhere to the maintenance intervals of the individual installation devices and the base vehicle. You will find these in the respective operating instructions.

Although the functions of all the equipment in your motorhome were certainly demonstrated to you when you bought it, you should read through the operating instructions again in detail. They contain useful advice on what to do when faults occur, care of the vehicle etc.

Permit

Traffic permit

Your motorhome is a vehicle requiring a permit according to traffic regulations. The following documents are required to obtain a permit:

- Vehicle license
- Insurance coverage card policy
- Identity card or power of attorney for permit, in some cases application for permit.

Identification is attached on the front and back using the fasteners intended for this purpose. Some federal states may require additional state identification (520 x 115 mm), which is also to be attached to the front and to the back of the motorhome.

Taxation

The type of tax levied on your motorhome currently depends on the permissible total weight. It can be related to emissions and cylinder capacity or to weight in connection to pollution and noise classes. Inform yourself of the current taxation regulations as applicable to your motorhome.

Insurance

You have to have liability insurance on your vehicle. Make sure that your insurance policy matches your needs and the use of your motorhome. Possible additional insurances include the following for example:

- Comprehensive insurance
- Insurance for travel in foreign countries
- Passenger insurance.

Your insurance company will help you select the appropriated insurance policies.

Seating capacity

Keep your motorhome in good condition both technically and with regards to traffic safety and adhere to all applicable traffic safety and permit ordinances. Please also adhere to the operating instructions provided by the base vehicle manufacturer and the body manufacturer. Modifications to the motorhome have to be recorded in the vehicle documents as otherwise the general operating license is deemed invalid.

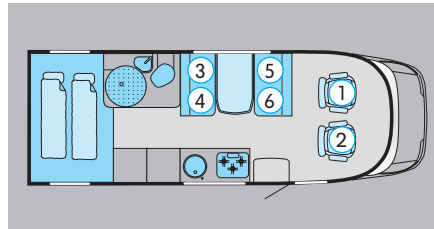
Seating capacity

The number of permitted seats is indicated in the vehicle documents. The arrangement of the permitted seats depends on the individual model.

- Permitted seats facing towards the direction of travel are equipped with three-point belts.
- Permitted seats facing away from the direction of travel are equipped with three-point belts or lap belts.

Caution

People who do not have their belts fastened are at risk of death in the case of braking or accidents. During travel, only use the permitted seats with belts and keep these belts fastened.



It is not allowed to transport more people than there are permitted seats in the motorhome (see vehicle license).

Example: Seating arrangement

The illustration above shows the arrangement of the permitted seats in a motorhome with 6 permitted seats. It is best to occupy the seats in the order of numbering.

- 1 Driver's seat with three-point belt
- 2 Passenger's seat with three-point belt
- 3 Seat facing the direction of travel with three-point belt
- 4 Seat facing the direction of travel with three-point belt
- 5 Seat facing away from the direction of travel with either a three-point belt or a lap belt
- 6 Seat facing away from the direction of travel with either a three-point belt or a lap belt

Belts

All persons in the vehicle should be seated in permitted seats, having fastened their belts before the vehicle starts moving and remaining buckled up for the entire drive.

Achtung

Intact and properly fastened belts can save your life in the case of accident.

Therefore please adhere to the following instructions:

- **Do not modify the belts in any way.**
- **Only use mild soap to cleanse the belts. Allow the belts to dry slowly and make sure that no moisture is allowed to enter the retractor mechanism!**
- **Have frayed, damaged or severely soiled belts replaced by an authorized specialist repair shop.**
- **Make sure the seat cushions are in the correct position so that all belts are accessible and functioning properly prior to commencing travel.**
- **Always use the belts in compliance with the guidelines.**
- **Always sit in an upright position and remain close to the backrest.**

Seating capacity

- Belts always have to be taut and close to the body.
- Belts should not be twisted when fastened.
- Always place the shoulder belt (in three-point belts) diagonally across the shoulder and chest. Never place the belt behind your back or under your arm.
- Place the lap belt as low and tight as possible around your hips and never around your waist.
- Children up to the age of 12, who are smaller than 150 cm, can only ride in the vehicle if the appropriate children's car seats are used. Please adhere to the legal stipulations as well as the installation and operating instructions issued by the car seat manufacturer.
- Each belt can only be used by a single person. Children should never be allowed to sit on the lap of another passenger and buckled in with the same belt.
- After each collision, all belts including the retractor mechanisms and the accompanying installation parts have to be inspected by an authorized

specialist repair shop and replaced if necessary.

Three-point belts



Fastening a three-point belt:

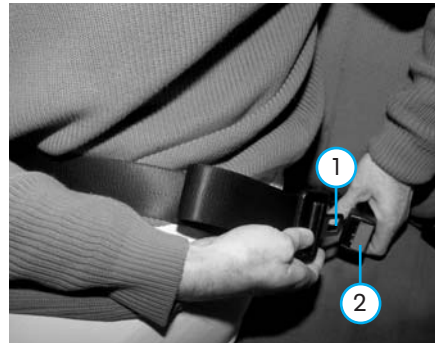
1. Sit in an upright position and lean on the backrest.
2. Pull the three-point belt slowly out of the retractor mechanism using the lock tongue and guide the three-point belt across the shoulder and hips as illustrated.
3. Push the lock tongue into the lock until you hear and feel it click into position.
4. Pull the three-point belt taut and place the lower part of the three-point belt down over the hips.

Three-point belts

Removing a three-point belt:

1. Press the belt lock button (3) until the lock tongue (1) is released from the belt lock (2).
2. Slowly guide the three-point belt towards the retractor mechanism.

Lap belts



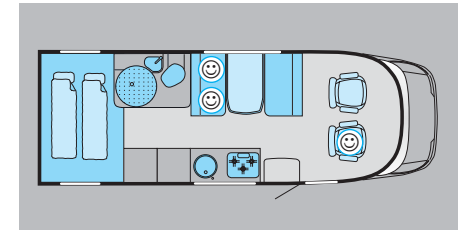
Fastening a lap belt:

1. Sit in an upright position and lean on the backrest.
2. Guide the lock tongue (1) with the lap belt across the pelvis as illustrated.
3. Push the lock tongue (1) into the belt lock (2) until you hear and feel it click into position.
4. Pull the lap belt taut and place it tightly across the hips.

Removing a lap belt:

1. Press the belt lock button until the lock tongue is released from the belt lock.
2. Remove the lap belt.

Children's car seats



Children's car seats

Example: Installing children's car seats

The illustration shows an example of installing a car seat on the permissible seats (☺).

Caution

Belts are intended for adults and can therefore not protect children under a certain weight and age.

- Children up to the age of 12, who are smaller than 150 cm, can only ride in the vehicle if the appropriate child's seats are used. Please adhere to the legal stipulations as well as the installation and operating instructions

Coupling device

issued by the car seat manufacturer.

- Car seats can only be installed on permissible seats that are facing in the direction of travel. Never install car seats on seats that are facing away from the direction of travel.

Coupling device

When using a Coupling device, it is especially important to pay heed to the maximum tow weight, the technically permissible noseweight and the maximum permissible total pull weight. The maximum permissible tow weight is indicated in the vehicle license and the notice pertaining to the permissible noseweight is found on the label on the towing facility. The maximum permissible total weight is found in the vehicle license. These values can not be exceeded.

Tyres

In the case of subsequent installation, the installation instructions for the towing facility are to be adhered to.

Caution

Connecting or disconnecting a trailer bears risk of injury. No persons should be between the pulling vehicle and the trailer while connecting or disconnecting.

Tyres

Worn tyre tread is a safety risk when driving on wet or slippery surfaces or in snow slush. The braking distance on a wet roadway is longer the more the tread is worn down. Loss of contact with the roadway (hydroplaning) occurs even at low speeds if the tread is not deep enough.

The minimum permissible tread depth is specified by law in most countries. Inform yourself of applicable local regulations. Replace tyres, the tread of which is less than the minimum permissible tread depth, in due

time. You will also find the proper tyre pressure in the operating instructions provided by the base vehicle manufacturer and, in some cases, the body manufacturer.

Tyre designation

The tyres permitted for your motorhome are indicated in the motor vehicle registration certificate. Knowledge of the indications on the tyres simplifies proper selection of spare or winter tyres.

Example: Indications on the tyres

215/70 R 15 C 109/107 Q

215 = Tyre width in mm

70 = Height/width ratio in %

R = Tyre belt type – abbreviation for radial

15 = Rim diameter in inches

C = Light truck tyres

109/107 = Load index

Q = Speed indicator

The tyre dimensions permitted for your motorhome are indicated in the vehicle registration.

Tyres

Caution

Incorrect tyre pressures, worn-out tyres and overloading can result in worsened driving conditions and braking behaviour of the motorhome.

Therefore please adhere to the following instructions:

- Check the tyre pressure and condition each time you go to the filling station.
- Immediately replace defective or worn-out tyres.
- Tyres should not be more than 6 years old because the material becomes brittle even if the tyres are not used (spare tyres).

Wheel change

Caution

Changing a wheel bears risk of injury and wheels that are mounted incorrectly can result in serious accidents.

Therefore please adhere to the following instructions:

- Please adhere to the operating instructions provided by the base vehicle manufacturer and the body manufacturer.
- Place your motorhome on level ground according to the instructions. Switch the engine off, put the vehicle in first gear and pull the hand brake.
- Secure the motorhome according to the local regulations by setting up a warning triangle or wearing a warning vest prior to changing the wheel.
- Secure the motorhome from rolling away by placing the wedges under the wheels.
- Disconnect the trailer before changing the wheel.
- Never lift the motorhome using its supports.
- Never jack up the motorhome by placing the jack on the superstructure.
- Only use an approved jack with adequate bearing strength to jack up the vehicle.

- Check the rim size, tyre size, tyre bearing capacity and speed index of the new wheel before placing it on the vehicle. Only use the rim and tyre size indicated in the registration document.
- Never lie down under the jacked up motorhome and never start the engine while the motorhome is jacked up.
- Check the tyre pressure as soon as possible after changing the tyre and have a specialist repair shop tighten the wheel nuts after 50 km at the latest!

Brakes

The components of the brake system are included in the general operating license. Modification of brake system components deems the operating license invalid. Changes shall only be made after obtaining approval from the manufacturer.

Please adhere to the base vehicle operating instructions.

Caution

Defective brakes can result in serious accidents.

Therefore please adhere to the following instructions:

- **Never modify brake system components.**
- **Only have brake system repairs carried out by specialist repair shops!**
- **Only use brake fluids that are permitted by the base vehicle manufacturer.**
- **Have the brake system inspected by an authorized specialist repair shop after not using the vehicle for long periods (approx. 10 months).**

Tips on commissioning

Correct loading of your motorhome

Overloading or unbalanced loading of your motorhome will result in worsened driving conditions and braking behaviour of the vehicle.

Make sure that you do not exceed the permissible total weight of the vehicle and the permissible axle loads when loading the vehicle. As a basic principle, the heaviest items should be as near the floor as possible. Therefore store heavy objects in this area. Make sure the load is balanced between the left and right sides. Objects in the top cupboards should also be protected against slipping. Do not exceed the maximum load for the cycle rack (special accessory) and the permissible roof load of 150 kg.

Please make sure that cycles are well secured and tied. After driving for a short distance, stop and check that nothing has moved.

In the interests of safety you should have the vehicle and passengers weighed before the start of the journey.

Loading

The maximum technically permissible overall weight stated in the vehicle documents may not be exceeded by excessive loading under any circumstances.

Please consider that any built-in accessories may reduce the possible loading. The precise unladen weight of your vehicle including any special accessories and excluding weight distribution tolerances of the vehicles can only be determined by weighing the vehicle. You then have the difference between the unladen weight and the permissible total mass to use for loading, persons, contents, bicycles and other utensils. The weight card with the unladen mass of your vehicle upon delivery from KARMANN-MOBIL is glued into the warranty booklet. The warranty booklet will be sent to you once you have sent the vehicle registration to KARMANN-MOBIL.

Required additional cargo

The following items have to be included on-board in Germany:

- First-aid kit
- Warning triangle
- Warning vest
- Flashing warning light (over 3.5 tons permissible total weight)

Tips on commissioning

You need the following for full usage of your motorhome:

- depending on usage: two filled 11 kg (or 5 kg) gas cylinders the 230 V supply cable with blue CEE plug
- an extension cord (cable reel)

Make sure that the permissible axle loads stated in the vehicle documents are not exceeded.

Headlight levelling

Road traffic regulations require proper alignment of the headlights to provide optimum visibility for yourself and others. In addition to this, the lighting is to be adjusted depending on the load placed on the vehicle. Headlight levelling is described in the operating instructions for the base vehicle.

Wing mirrors

You will find large wing mirrors on both sides of your vehicle. Before starting out on your first journey you should adjust these and if necessary correct them after a short distance.

Do not use your new motorhome immediately for a long holiday trip. A weekend trip of maximum 100 kilometres is enough for the first time. Drive slowly and carefully. Observe the rules for running in the basic vehicle.

Dimensions

Your motorhome may be a larger vehicle than you are used to driving. Get used to the special dimensions of the vehicle slowly (listed in the technical data in the annex to these operating instructions).

Take particular care when:

driving through gates, over bridges, under arched tunnels or archways, into car parks.

Traffic safety checklist

To make sure that your Karmann motorhome is always safe, you should check certain points before the start of every journey. You can find more detailed information about this in these operating instructions:

- Retract entrance step (warning or control signal)
- Make sure that no persons are located in the swivel range of the entrance step when extending or retracting the entrance step.
- Lock the swivelling driver's and passenger's seats facing the direction of travel before beginning the journey
- Close and lock all exterior flaps
- Close the superstructure door
- Close and lock the opening window
- Close the roof hatch
- Close drawers and cupboards
- Close door to bathroom and WC
- Close fridge door
- Switch the fridge to the 12 V system (this is not necessary if the fridge is equipped with automatic energy selection.)
- Secure TV aerial, if installed
- Check luggage for secure fixing
- Store away objects lying around on shelves, tables etc.

Traffic safety checklist

- Only place heavy objects in cabinets, the doors of which open away from the direction of travel
- Close shutoff valves for gas equipment, if it is not being used
- Remove leaves, snow and ice from the roof if necessary in the autumn and the winter
- Check the battery voltage of the vehicle and auxiliary battery at the control panel, particularly in winter (see Page 6-1).
- Open all blinds before starting the journey
- Retract all existing supports
- Remove all additional supports and wedges

Check the following on the basis vehicle according to the operating instructions:

- Tyre pressure (see driver's door frame)
- Vehicle lights and signalling device
- Steering and brakes
- Oil level
- Coolant level

Travelling in the Karmann mobile home

Even if you are used to driving motorhomes, you must remember when travelling that, because of the chassis, a motorhome is not a small

passenger car and requires particular care as regards driving and handling characteristics:

- Because of its relatively long projection behind the rear axle, the back end of the vehicle can break away. When driving up steep slopes or ramps make sure that the back end does not hit the ground.
- Avoid sudden braking if possible.
- Make sure that any passengers sitting in the rear of the vehicle are wearing their belts and that they do not leave their seats.
- Only allow people to travel in the vehicle in the seat provided with belts. It is not allowed to transport more people than there are permitted seats in the motorhome (see vehicle license).
- Remaining in the coachbuilt during travel is not permitted!
- Even after short interruptions to the journey, always make sure that the entrance step is retracted.
- Never drive in reverse without a rear-view video system (optional), without having someone guide you.
- Adjust your driving style to the road conditions and the actual weight of your motorhome while driving.

Parking the vehicle

Not securing the motorhome from rolling away results in danger of injury.

Therefore please adhere to the following instructions:

- Prior to securing the motorhome with supports or wedges, always turn off the engine, put the vehicle in first gear and pull the hand brake.
- If your motorhome is not equipped with supports, place wedges in front of and behind a wheel.
- If your motorhome has supports in the rear, then extend these.
- Never place wedges under the wheels to compensate for uneven ground!
- Make sure that no persons are located in the swivel range of the entrance step when extending or retracting the entrance step.

Traffic safety checklist

Travelling and overnight stops

In general it is allowed to make overnight stops in car parks in Germany - at least for one night. However, camping tables, chairs etc. or other items should not be placed outside to give the impression of "camping out". Specialist magazines and camping guides contain useful information, or you can contact the CIVD club to find out about districts which welcome caravans and motorhomes, rules for sewage water disposal etc. Different rules apply abroad with regard to motorhomes and overnight stops.

Find out about the following before starting your journey:

- necessary documents
- legal regulations concerning maximum speeds and prohibitions on overtaking
- electrical supply standard
- where to make overnight stops

The ADAC can also supply information with regard to the relevant regulations concerning overnight stops outside camping sites, speed limits etc. in the country you plan to visit.

Positioning the motorhome

Please adhere to the following when selecting a suitable place to position your motorhome on vacation and for interim overnight stays:

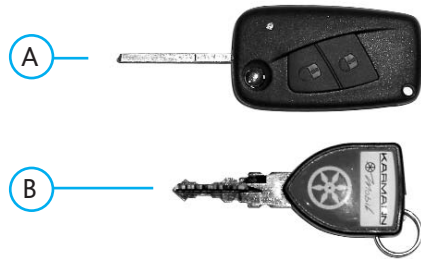
- The ground has to be even and be able to bear sufficient load.
- Make sure that an electrical supply outlet is available close to the campsite and that freshwater and sewage water connections are available if possible.
- Make sure that the superstructure door and all service flaps remain easily accessible. Proceed as follows once you have found a suitable campsite and have parked your motorhome:
 - Switch the engine off, put the vehicle in first gear and pull the hand brake.
 - If your motorhome is not equipped with supports, place wedges in front of and behind a wheel.
 - If your motorhome has supports in the rear, then extend these.

Caution

Prior to securing the motorhome with supports, additional supports or wedges, always turn off the engine, put the vehicle in first gear and pull the hand brake. Never place wedges under the wheels to compensate for uneven ground!



Keys



The following keys are included with your motorhome:

Key A (two keys)

Ignition, driver and passenger door, fuel flap

Key B (three system keys)

Superstructure door, external storage box including service flap of the toilet, gas cylinder box, freshwater filler nozzle

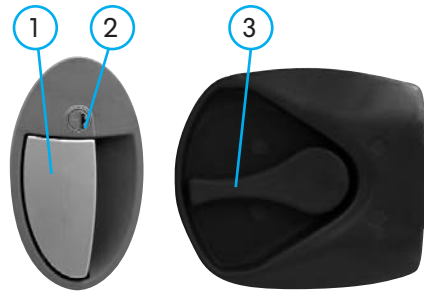
Note

Depending on equipment, your Karmann motorhome may also be supplied with other keys, e.g. for top box.

Caution

Before starting your journey, ensure that the superstructure door is locked.

Cabin door



The cabin door is equipped with a blind to darken the window and a storage compartment (5).

Blind:

Push the blind (4) up to darken the window.

Superstructure door lock

Opening from the outside (right door hinge):

1. Put the key in the door lock (2).
2. Turn the key clockwise approximately 90°. The door unlocks.
3. Turn the key back to the original position and pull it out.
4. Pull the door opener (1) to open the cabin door.



Locking from the outside (right door hinge):

1. Lock the superstructure door.
2. Place the key in the lock (2) and turn counter-clockwise approximately 90° until the door locks audibly.

Opening from the inside:

- Pull the door opener (3) down. The cabin door opens even if it is locked.

Locking from the inside:

- Close the cabin door and pull the door opener (3) up.

Locks for outside storage boxes



The outside storage boxes are all supplied with identical locks.

Unlocking the flap

Insert the key in the lock and turn to the right until the lock opens. Return the key to the original position and retract. Open the flap by pulling the handle.

Locking the flap

Insert the key in the lock and turn to the left until it locks. Return the key to the original position and retract.

Caution

Before starting your journey check that all outside flaps are closed and locked.

Entry



Electrically-operated entrance step

The step can be extended or retracted by means of the switch in the entrance area.

Caution

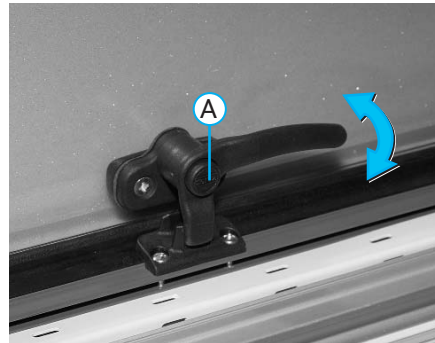
Extending and retracting the step can result in risk of injury by crushing and bumping.

- Make sure that no persons are located in the swivel range when extending or retracting the step.
- Never grab the step while in motion.
- Observe the step while in motion.

Entry

Opening windows

- Only extend or retract the step when it is not bearing weight.
- Only use the step when it is fully extended.
- Retract the step before travel. An alarm signal will warn you upon starting the engine if the step is extended.



Open and close windows

To open the windows, press the locking button A and push the lever.

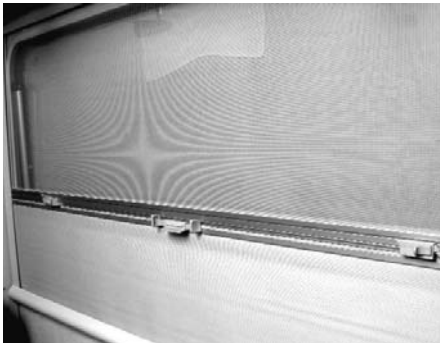
The window is now open and can be latched into a variety of positions. In order to release the catch, lift the window slightly.

Note

In order to avoid damage, windows must not be open during travel. Never use deicing spray or an ice scraper. Please note the instructions regarding vehicle care (9-1).

In extremely humid conditions, the space between the panes may mist up. This disappears again in dry weather.

Shade and insect blinds



All windows are provided with a shade and insect blind. The illustration shows both blinds in half-open position. Both blinds can be pushed up and down together or separately.

Shade blind

The shade blind is pulled from the bottom to the top.

The blind is adjustable and can be fixed in various positions.



Insect blind

Pull the insect blind from the top to the bottom. The handle is hooked into the handle of the shade blind and can be fixed in any position together with the shade blind.

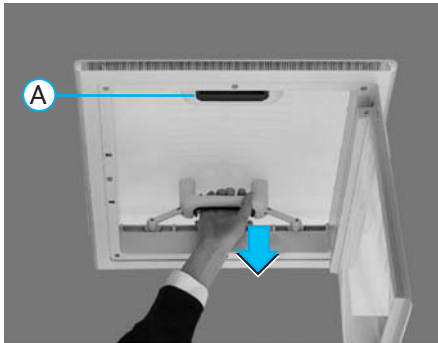


Caution

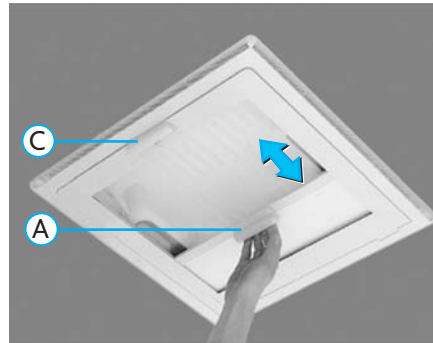
Always pull up the shade blind completely before loosening the connection between insect and shade blind. This prevents the insect blind from shooting up in an uncontrolled way, which could cause injury.

Blinds may not be closed during travel!

MPK roof hatch



Before opening the roof hatch, first open the insect grille. In order to push up (and close) the hatch, handle lock A must be pressed in. The roof hatch can be closed at each side. The insect grille can be removed for cleaning. Pull down grille and pull off.



Shade blind

To darken the room, hook blind B into the holder on the handle of frame C.

Notes

- In order to ensure a sufficient supply of oxygen at all times, your motorhome is supplied with automatic ventilation. However, in order to avoid condensation, it is important to air the inside of the vehicle and living space at regular intervals.
- Air your motorhome in the summer in order to avoid build-up of heat.

- Free the roof hatch of snow in winter in order to prevent water entering through the ventilation grille.
- Roof hatches must be closed during travel in order to prevent damage.
- Rub the roof seal with talcum powder every 3 months to prevent sticking seals and resulting damages.

HEKI roof



Opening and closing pane

When winding the handle to open, only wind until resistance can be felt. The angle of opening is max. 70°. When winding the handle to close, turn a further 2-3 times through a complete rotation (when the glass roof is already closed) in order to lock completely. Check lock by attempting to raise by hand.

Operating the blinds

Closing:

Take recess of finishing bar (without rocker/shade) and latch into opposite finishing bar with rocker.

Opening:

Push joined finishing bars into the shade position. Press the rocker and push back the

blind with the other hand (do not leave go of shade).

Adjustment:

Push joined finishing bars into the desired position.

Safety instructions

- Do not step on the acrylic glass
- Close the hatch completely before starting your journey
- Close the hatch before leaving the vehicle (risk of burglary or rain)
- Do not open in strong winds or rain
- Before opening the Heki 3 hatch, remove ice, snow leaves or any other similar items
- Do not use pressure washers, solvents or cleaning materials containing alcohol.

Caution

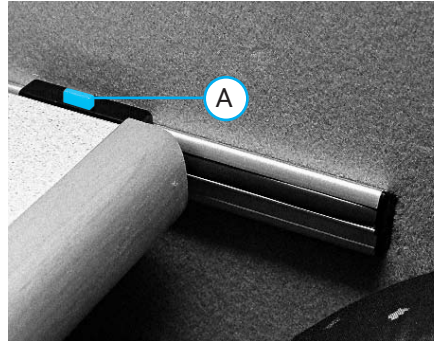
In strong sunlight the shade blind may only be closed 2/3 (plastic parts may be damaged if heat builds up between the blind and the glass).

Blinds may not be closed during travel!

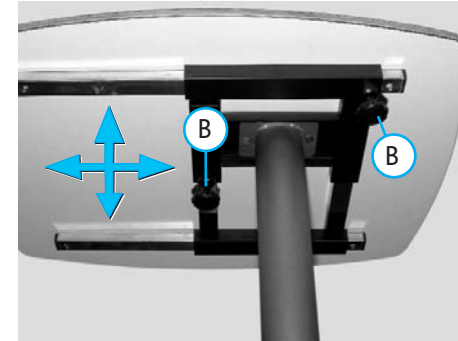
Table in the L seating group 670

**Lower tabletop**

Lift the table slightly at the front edge. Pull the table leg downwards and hinge it backwards. Then lift the tabletop out of the guide rail and lay it on the bench rails. In order to return the table to its original position, click it into the guide rail and hinge the table leg down.

**Caution**

Make sure that the table is correctly clicked in. If so, red knob A projects.



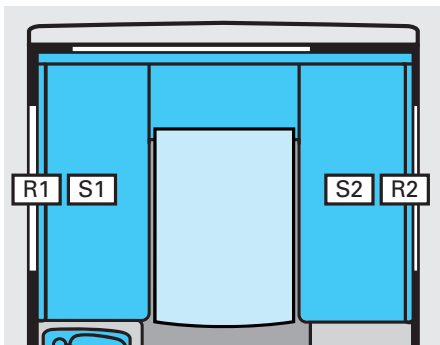
The tabletop in the Ontario 670 can be adjusted both lengthwise and crosswise relative to the direction of travel.

In order to adjust it, loosen the knurled screws B and slide the tabletop to the required position.

Caution

Lock the tabletop during travel in order to prevent damage.

Sleeping in the rear seating group (700 HS)

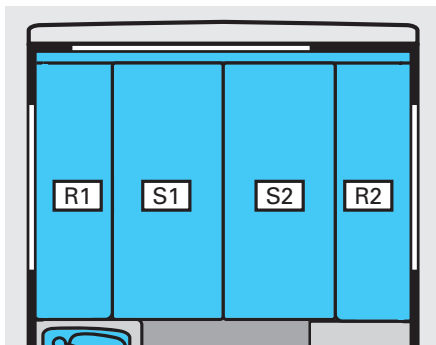


Rearrangement of rear seating group for sleeping purposes

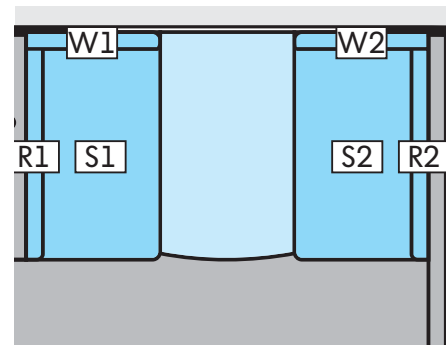
Lower the tabletop to the level of the benches as described on the previous page.

The seat cushions (S1, S2) of the side benches are pulled onto the tabletop. Use the backrests of the side benches (R1, R2) to fill in the remaining space.

In order to return to the seating group, carry out the steps in reverse order.



Sleeping in the Dinette 580, 700

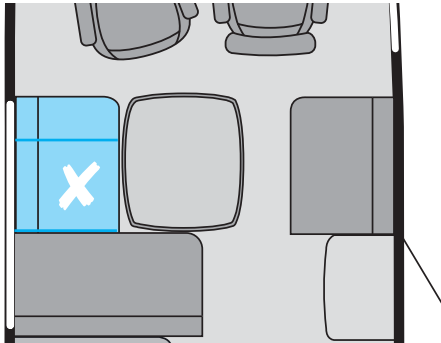


Rearrangement of the seating group for sleeping

Lower the tabletop to the level of the benches as described on the previous page.

Loosen and remove the backrest cushions (R1+R2). Fill the remaining surface on the tabletop with the backrest cushions. In order to return to the seating group, carry out the steps in reverse order.

L seating group 670



Note

The middle seat in the lengthways bench of the model 670 can be removed. This allows for an additional seat secured with a strap.

Coachbuilt



The floor of the overcab bed can be folded up by 90 degrees to permit convenient access to the driver's cabin.

Caution

Keep hands away from the folding mechanism when folding down. Closing the folding mechanism on hands can result in injury.

Coachbuilt ladder

The bed in the coachbuilt is reached using the coachbuilt ladder. The ladder must be secured horizontally in the coachbuilt during travel.



Coachbuilt latch

The coachbuilt latch is found under the mattress. It is simply hung in the holders on the side furniture stands for sleeping.

Caution

Falling from the overcab bed can result in serious injuries.

- Always use the coachbuilt ladder to get in and out of the coachbuilt and always attach the ladder properly prior to use.
- Always use the coachbuilt safety while sleeping.
- Remaining in the coachbuilt during travel is not permitted!

Cupboards



Pushlock

All drawers are provided with pushlocks which prevent the cupboards from opening of their own accord during the journey.

Locking

Close the drawers and press the locking knob inwards. Make sure that the knob remains in the pushed-in position: The lock is locked.



Opening

Press the locking knob in order to open the cupboard flaps.

Caution

Before starting each journey made sure that all flaps and drawers are closed and locked. Secure the items stored in cupboards and drawers against slipping in order to avoid damage.

Gas Supply

The gas installation in your motorhome has been installed according to the German technical rules for liquid gas devices and fireplaces in vehicles (DVGW- sheet G 607). The test certificate for gas certifies proper installation of the gas installation. This test certificate for gas is deemed invalid if the gas installation is modified subsequent to delivery of your motorhome. The inspection label is attached beside the rear number plate.

According to law, the gas installation has to be inspected every two years by an authorized specialist shop. Proof of this inspection has to be presented for vehicle inspection according to road traffic licensing regulations. Always adhere to the operating instructions of the installed heater. The operating instructions of the installed heater have to remain with the motorhome at all times.

The gas installation is intended for operation with butane, propane or a mixture of the two.

Propane can be used at temperatures above 42°C. Butane can be used at temperatures above 0°C.

Gas cylinder box

You will find the position of the relevant gas cylinder box on the equipment pages from 1-1. The gas cylinder box accommodates two 11 kg gas cylinders. Both gas cylinders must always be secured by a fastening strap to prevent twisting. The pressure controller must be connected to the cylinder (left-hand thread) in such a way that there is no tension or buckling in the connection hose. Where energy is to be supplied in the form of gas, open the cylinder. If the gas in one cylinder has been used up, connect the other cylinder manually.

SecuMotion gas pressure regulator (special equipment)

The SecuMotion gas pressure regulator regulates and monitors the consumption of liquid gas and provides steady gas pressure.

Note

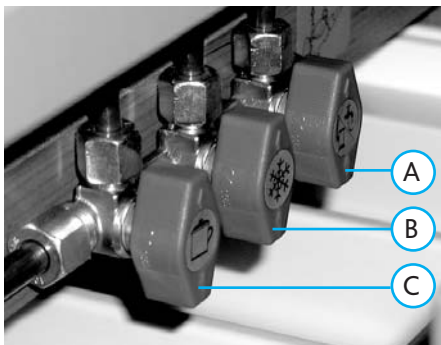
If the SecuMotion gas pressure regulator is installed, then the liquid gas heater can be used during travel within Europe as stipulated by EU Directive 2001/56/EG. More detailed information pertaining to the gas pressure regulator can be found in the manufacturer's documentation.

The installation is started up by means of the rocker switch on the control element. The installation is ready for operation when the switch is in the "down" position. On the control element two lamps indicate whether the corresponding gas cylinders contain any gas. The lamp goes out when the gas cylinder is empty. When the switch is in the "up" position, the installation goes into winter mode: the gas pressure controllers are heated in addition. When the switch is in the central position the installation is switched off, but it is still under pressure. The gas supply is isolated mechanically only by means of the shut-off valves of the cylinders.

Note

The gas cylinders are not supplied with the vehicle!
The commercially available red gas cylinders can only be filled by your local gas dealer. The commercially available grey gas cylinders can be filled or exchanged throughout Europe. Sometimes a gas test certificate, attached to the vehicle, is demanded. You can present this to your gas supplier.

Gas Supply



Gas distributor block

Location:

In the drawer below the stove top.

Each consumer has its own fast-acting closure valve in the gas distributor block which opens or closes the gas supply. The valves are marked with pictograms on the knob.

A = Heating

B = Fridge

C = Gas cooker

Where the gas distributor is installed in vertical position (for example see picture), the knobs are open when they are in the horizontal position;

where the distributor is installed horizontally, they are open in vertical position. All gas devices are doubly secured. Please also note the attached operating instructions. If you do not use your motorhome for several days, you should always close your gas cylinders.

Caution

In the case of accidents or malfunctions you must also consult the operating instructions from the various equipment manufacturers.

Handling gas is associated with risks of fire, explosion and suffocation.

Therefore please adhere to the following instructions:

- **The gas pressure regulator on the connection hose is set to a fixed pressure of 30 mbar. Never connect gas consumers that are not designed for this amount of pressure.**

- **Always connect the gas pressure regulator directly to the gas cylinder valve and by hand (left-handed thread). Do not use tools.**
- **The connection hose between the pressure controller and the gas installation must be checked regularly. If there is any porosity or an actual leak, it must be replaced immediately. Pay attention to the expiry date! The new hose must be in accordance with the standard printed on the old hose. Have a defective connection hose replaced by an authorized specialist repair shop.**
- **Only have modifications or repairs to gas installations and heaters carried out by authorized specialist repair shops.**
- **Have the gas installation and the heater inspected by an authorized specialist repair shop after not using the vehicle for long periods (approx. 10 months).**
- **If you suspect that the gas installation is defective (strong smell of gas or rapid gas consumption), shut off the entire gas installation immediately. Ventilate the motorhome thoroughly and have the gas installation inspected and**

Gas Supply

repaired as needed by an authorized specialist shop.

- Never use electrical switches, plugs or devices upon smelling gas. Open fire and smoking are not permitted due to risk of explosion.
- Only store the gas cylinders in the gas cylinder box and never in the body. The gas cylinder box has space for up to two gas cylinders with 11 kg or 5 kg filling weight each.
Always lock the gas cylinder box!
- Always place the gas cylinders in an upright position in the holders intended for this purpose in the gas cylinder box. Always secure the cylinders again by tilting and turning by tightening the fasteners.
- The gas cylinder box is equipped with a mandatory vent. It is open at the bottom. This vent should not be covered and nothing should be placed in front of it (e.g. snow slurry). Do not use the gas cylinder box as storage space.
- Close the gas cylinder valve if you do not use a gas device.
- Operation of the gas installation during travel is only permitted if the installation is equipped with the Secumotion gas system.

- Switch off the gas installation entirely before refueling or entering garages, car parks or ferries.
- Never allow gas to be released when it is not used for burning.
- Make sure that the mandatory ventilation provided by the ceiling vents and openings is always open and unobstructed.
- Open the fast-acting closure valves of each gas consumer only while using this gas consumer. Close the fast-acting closure valve subsequent to each usage!
- When working on or near the gas installation, keep open flames and other sources of ignition away. Smoking is prohibited!

Heating and hot water supply

Trumatic heater

Location:

In the wardrobe.

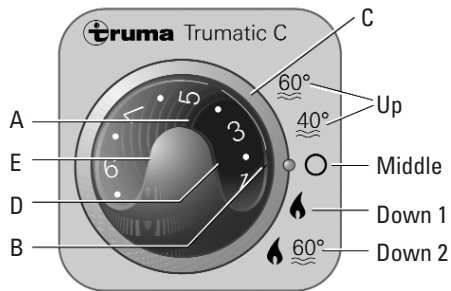
The Trumatic heating system in your Karmann-Mobil motorhome is equipped in addition with an integrated 12 ltr. boiler to supply the bathroom and the kitchen with hot water. The control element is mounted above the superstructure door. The warmed heating air is distributed throughout the living room by means of a circulation fan.

In **summer mode** (water heating without room heating) the service water is heated up on the lowest burner stage. Once the water temperature set has been reached, the burner switches off. The yellow lamp (E) goes out.

In **winter mode** the unit determines automatically through the thermostat which burner stage is needed.

Once the desired temperature has been reached:

- with the switch at **Down 1**, the heating switches off regardless of the water temperature, and with the boiler full the water is automatically also heated, or



- with the switch at **Down 2**, the hot air fan of the heating switches off and the content of the boiler is heated up to 60°C at the lowest burner stage.

Control element and modes of operation

A = Knob for room temperature

When the device is switched on, the green lamp (B) of the knob should be illuminated. If the light does not light up, check the cutout III on the control panel (p. 6-1).

C = Knob with five positions

- Up = Boiler (summer mode, temperature 60°C or 40°C)
- Middle = Off
- Down 1 = Heating + Boiler (winter mode, without hot water requirement)
- Down 2 = Heating + Boiler (winter mode, with hot water requirements, 60°C)

D = Red pilot light "Fault"

Indicates a fault in the gas or mains input. In such a case consult the fault table (see p. 11-2) or the attached operating instructions of the combination unit.

E = Yellow pilot light "Boiler heat-up phase"

Lights up during the heating-up phase of the boiler. When the water or air temperature set has been reached the light goes off.

Start-up of the heating and boiler:

1. Switch on mains input on the control panel (p. 6-1).
2. Open main valve on gas cylinder and shut-off valve (p. 5-2).
3. Set desired temperature stage at knob A.
4. Set knob C to desired mode of operation.

Switching off after extended shutdown:

1. Bring knob C to the middle position.
2. Drain boiler.
3. Close gas valves.

Note

Note also the attached original operating instructions.

Heating and hot water supply



Safety/drain valve with antifreeze

The safety/drain valve is mounted on the floor in front of the boiler.

When the button is out the valve is closed. To drain the boiler, press the button in.

Note

The valve only works when the mains input is guaranteed. If the body battery is disconnected or discharged, the valve will open and the boiler will drain.

At temperatures below 3°C the antifreeze safeguard will drain the boiler automatically at the drain valve to prevent any frost damage to the unit.

If the temperature drops below the response value during operation, turn the knob C to on the control element to winter mode (down) and close the valve by pulling the button out. The valve will only close from an ambient temperature of 8°C.

Filling the boiler

1. Pull the button on the safety valve out. At temperatures below 8°C, switch on the heating first so that the valve will not open.
2. Switch on the water pump on the control panel (p. 6-1).
3. Set single-lever mixer tap in the bathroom or kitchen to "Hot" and leave open until the water flows in a powerful stream.

Note

When filling the boiler, take care to ensure that the drain valve for freshwater pipes is closed (p. 7-2).

Draining the boiler

1. Switch off the water pump (p. 6-1).
2. Open the hot water taps in the kitchen and bathroom.
3. Push button on safety valve in (p. 5-4).

General instructions

- Check that the water discharge of the boiler is not obstructed by slush or similar, thus ensuring complete drainage.
- Hot water should not be used as drinking water.
- The boiler can be descaled using vinegar.
- When you have given the vinegar a certain time to act, rinse the boiler through with freshwater. Never use aggressive agents or products containing chlorine for cleaning. The manufacturer recommends "Certisil-Argento" for disinfection purposes.

Safety instructions

- Do not modify the heating system in any way.
- Repairs and maintenance must be carried out by a specialist.
- Every two years the installation is subject to a mandatory inspection by an authorised inspector (TÜV, DEKRA, DVFG). You as the owner are responsible for ensuring that the inspection is performed within the mandatory period.
- The heating may not be started up when the motorhome is being fuelled or is standing in an enclosed space.
- The hot air outlets of the heating system may not be blocked by items of luggage.

Heating and hot water supply

- The motorhome's forced ventilation may not be closed off.

You will find further instructions in the attached operating instructions from the manufacturer.

Caution

- **The waste gas flue may not be sealed off by doors or flaps and must kept be free of snow and dirt.**
- **Check the heater's ignition safeguard on a regular basis. If the flame goes out, then the safety pilot should audibly (clicking noise) interrupt the gas supply after approximately one minute.**
- **Please heed national legal restrictions which may apply to operation during travel.**
- **Turn the heater off if you are not certain of the restrictions.**
- **Before connecting to a central water supply (county or city connection), a pressure reducer has to be installed to prevent pressures over 2.8 bars in the boiler.**
- **The water in the boiler is hot and can scald. Allow the warm water boiler to cool before emptying.**

Gas cooker



The gas cooker is equipped with a cover plate of safety glass. To prevent any damage to the glass plate never operate the gas cooker with the plate down and close the glass plate before every trip.

Starting up the gas cooker

Before cooking you must first open the main shut-off valve on the gas cylinder (p. 5-1) and the shut-off valve (p. 5-2). Open the glass plate in order to cook.

Gas cooker

Igniting the cooking rings

- Turn the knob for the desired cooking ring in anticlockwise direction (to the High position).
- Ignite the gas from the side at the burner.
- Keep the knob pressed for about 10 seconds when the flame at the cooking ring is burning in order to override the ignition safeguard temporarily. If the knob is released too early, the flame will go out. It can then be re-ignited immediately.
- If the flame at the cooking ring is still burning when you release the knob, you can regulate it with the knob:
 - "big flame" symbol: high position
 - "small flame" symbol: low position.

End of cooking

- Turn the knob in clockwise direction (0 position).
- Close shut-off valve (p. 5-1).

General instructions

- Place saucepans in the middle of the cooking ring.
- Only use saucepans with a maximum diameter of 16–20 cm without a curved base.
- Only use saucepans suitable for a gas cooker.

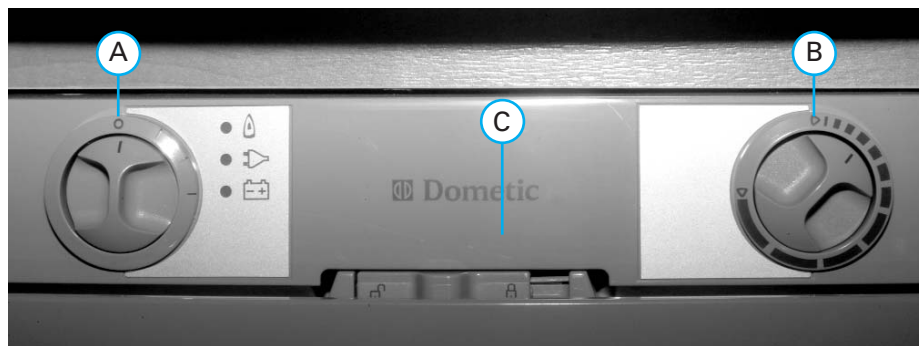
- Make sure that flames do not come out beyond the edge of the saucepan.
- Where saucepans are hot, make sure there is a minimum distance of 2 cm to the glass cover.

Caution

- **The cover plate of the stove top and the sink are made of glass. The cover plate is at risk of breaking if hit or weighted. Do not use as a shelf. No pot should be placed on the stove while igniting!**
- **Do not keep any inflammable objects near the cooker when it is in use.**
- **While the cooker is in use, open the roof flap to prevent oxygen deficiency.**
- **Do not overheat oil or fat – fire hazard!**
- **Do not allow the handles of saucepans and frying pans beyond the edge of the work-plate to ensure that no one can knock anything off the cooker by mistake.**
- **Never leave the cooker unattended, especially if children are on board!**
- **Cooker flames may not be used for heating purposes.**

- **All gas shut-off valves must be closed if the cooker is not used for an extended period, and invariably before setting out on a trip.**
- **Check the cooker's safety pilot on a regular basis. If the flame goes out, then the safety pilot should audibly (clicking noise) interrupt the gas supply after approximately one minute.**

Fridge



The fridge is designed for operation with 230 V, 12 V or gas. Selection of the mode of operation and cooling capacity takes place on the control panel.

- A = Energy selector switch**
- B = Gas/electrical thermostat**
- C = Door lock**

Gas mode

- Open main shut-off valve (p. 5-1) and the shut-off valve in the body (page 5-2).
- Set the energy selector switch A to gas mode.
- Turn the knob B in clockwise direction as far as it will go.
- Ignition is automatic. When the "Gas"

indicator lights up and there is a ticking noise, this shows that ignition sparks are being generated. After successful ignition the noise will stop.

- To switch off gas mode (complete shut-down) set the energy selector switch A to the vertical position 0.

230 V mode

- Set the energy selector switch to mains operation (230V).
- Make sure you only select this operating mode when the mains input matches that given for the fridge; otherwise the unit may be damaged.

12 V mode

- Set the energy selector switch A to 12 V mode.
- 12 V mode is only possible when the motor-home is travelling; this prevents excessively fast discharge of the battery.

Automatic mode – AES (optional)

In the AES version the fridge has an automatic selection facility. The unit is equipped in addition with an automatic function which chooses autonomously between different kinds of energy. To achieve this set the switch A to "Auto". The electronically selected type of energy is indicated. You can switch to manual mode at any time.

Temperature control

The fridge needs a few hours to achieve its normal operating temperature. When the fridge is full the cooling time is longer.

- In 230 V mode knob B is used for control purposes.
Once operating temperature has been reached, the controller can be turned back to a middle position.
- In gas mode knob B is also turned back to a

Fridge

middle position after operating temperature has been reached.

Door lock

To prevent the fridge door from being opened during travel, it is fitted with an interlock (C). The picture shows the door when unlocked. To close, slide the lock to the right. If the fridge is taken out of service for an extended period, open the door a little way and place the interlock switch in the middle position. This will keep the door ajar to prevent the formation of mould.

Caution

- **Before starting your journey, switch the fridge to the 12 V system.**
- **Secure the fridge door with the door lock before travel.**
- **Prior to use of the fridge in 230 V mode, make sure that the connected mains input matches the fridge's technical data.**
- **Make sure the fridge's ventilation grill is unobstructed before use.**
- **At an outside temperature below 0°C, winter covers (optional) have to be installed to prevent damage to the cooling unit.**

General instructions

- Where possible, use precooled foods.
- Start the fridge up a few hours before you start your journey to get it down to operating temperature.
- Food and drinks should only be kept in tightly sealed containers in the cooling compartment. Evaporating liquid will help cause the cooling ribs to ice up.
- You can prevent any knocking noises during travel by stuffing screwed-up paper between the containers.

You will find instructions for cleaning the fridge in our "care tips" on p. 10-2.

Further details can be found in the operating instructions accompanying the fridge.



Your motorhome has a combined 230 V/ 12 V system. This electrical system includes the connection plug (230 V), the two-pole automatic circuit breaker with earth leakage protection, the charging device, the distribution module with 12 V use box, the body battery and the control panel.

Caution

Electrical current!

Touching voltage-conducting parts can result in death. If the electrical system is defective, parts could become voltage-conducting and fire could result.

Please adhere to the operating instructions for the control panel and the distribution module as well as the following notes:

- **Make sure the connected current matches the electrical system's technical data.**
- **Only use intact connection cables with a maximum length of 25 m to connect the electrical system to the mains input. Always uncoil cable reels entirely because they can otherwise overheat.**
- **Make sure that it is not possible to trip over the connection cable.**

- **Only have work done to the electrical system by an authorized specialist repair shop.**
- **Have the electrical system inspected by an authorized specialist repair shop on a regular basis.**
- **Prior to any work on the electrical system, switch off all devices and lamps, disconnect the external 230 V mains input and disconnect the body batteries.**
- **Only operate intact electrical devices using the electrical system and do not exceed the electrical system's maximum permissible output.**

Connecting the mains input

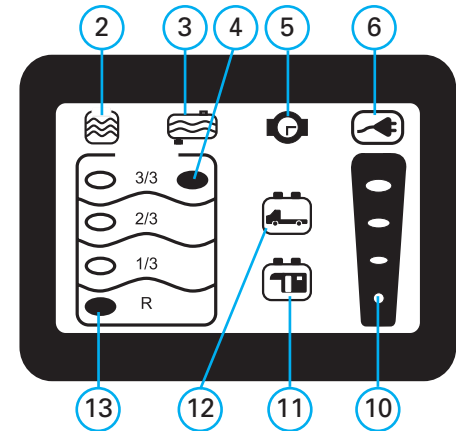
You need a three-pole CEE connection cable and, in some cases, an extension cord. Prior to travelling (even to other countries within Europe), inform yourself of the standard plugs and connection systems. The cable has to be a flexible rubber hose cable that is permissible for outdoor use and which has a cross-section of at least $3 \times 2.5 \text{ mm}^2$ and a length not exceeding 25 m.

Caution

Cable reels should be uncoiled entirely to prevent overheating.

1. Open the connection outlet on the vehicle and flip the protective cover of the connection plug up.
2. Place the connection cable outlet on the outer plug. Subsequently connect the plug of the connection cable with the 230 V supply.
3. Disconnect the mains input in reverse order.

Control panel



Location:

Inside above the superstructure door in all vehicles.

Control panel

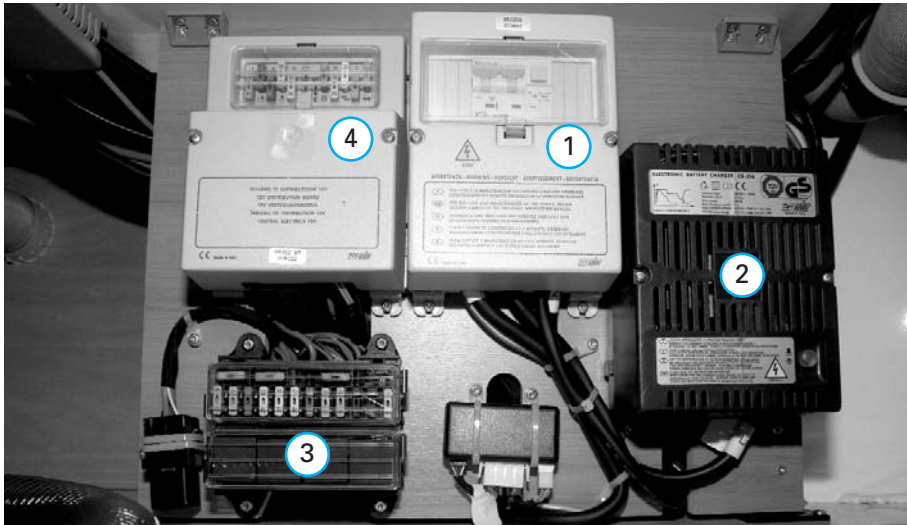
The control panel provides an overview of the most important supply systems at a glance and provides control functions (B1 = vehicle battery, B2 = body battery).

Functions:

- 1 Vehicle battery monitoring button
- 2 Signalizes the water container test, blinking means the water container is empty
- 3 Signalizes the sewage water tank test,

- blinking means the sewage water tank is full
- 4 Signalizes charging of the batteries B1 and B2 using the generator
 - 5 Signalizes that the sewage water tank is full.
 - 6 Signalizes the 230 V mains input
 - 7 Tent light switch, the tent light is switched off automatically, dependent on the main switch
 - 8 Main switch
 - 9 Water pump, dependent on the main switch.
 - 10 Voltage display of batteries B1 and B2.
 - 11 Signalizes body battery test, blinking signalizes alarm.
 - 12 Signalizes vehicle battery test, blinking signalizes alarm.
 - 13 Signalizes the level of the water container.
 - 14 Water container monitor button
 - 15 Body battery (B2) monitor button.

Fuses



- 1** Circuit breaker with earth leakage protection
- 2** Charging device
- 3** 12 V cutout box
- 4** 12 V distribution module

Location:

580 right storage compartment
 670 behind gas cylinders
 700 under the foldable entrance step

Upon connecting to the mains input, the charging device and the plugs in the kitchen and in the benches are supplied directly with 230 V AC power. The 12 V system is supplied by a body battery that is separate from the starter battery. This battery is charged on an ongoing basis by the charging unit when connected to a mains input. The vehicle's generator charges this battery during travel.

An isolating relay in the engine compartment regulates the current flow when the generator is running. If the voltage exceeds 13.3 V, then the body battery is charged.

The charging device charges the batteries if connected to a mains input. It has an ON/OFF switch and a selector to switch between gel and acid batteries.

12 V cutout box

The cutout box contains the fuses for the 12 V consumer load. The slot assignments and cutout sizes are allocated as follows:

Position Consumer	Cutout Unit
1. Running light left	5 A
2. Running light right	5 A
3. Ignition (terminal 15)	10 A
4. 12 Volt distributor furniture right / rear	20 A
5. 12 Volt distributor furniture left rear washroom	20 A
6. 12 Volt distributor furniture left front	20 A
7. Heat exchanger pump	10 A
8. Oven with grill	5 A
9. Extractor hood	5 A
10. SecuMotion	1 A
11. Camera for reversing	1 A
12. Ceiling ventilator	5 A
13. free	
14. Work lights rear	10 A
15. Auxiliary heating and sun blind	40 A
16. 300W inverter	40 A

Fuses in the distribution module

The distribution module controls charging of the vehicle and body batteries and contains the following fuses.

Position Consumer	Cutout Unit
1. Tent light	5 A
2. Water pump	10 A
3. Heater/boiler	10 A
4. Light group "A"	20 A
5. Light group "B"	20 A
6. 12V AES and absorber fridge	30 A
7. Additional output "AUX"	20 A
8. Electrical step	25 A
9. Gas supply	3 A
10. "simulated D+" output	3 A

Caution

**Only replace defective fuses once the cause of error has been remedied.
Only use original fuses that correspond to the specified values.
Never repair or bypass fuses!**

Circuit breaker with earth leakage protection

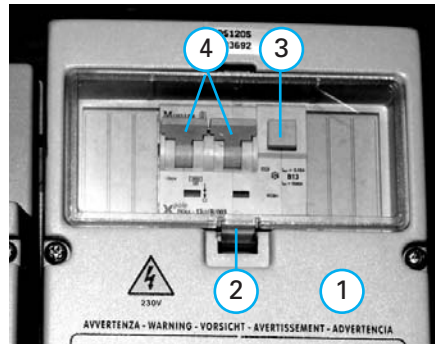
Safeguards the supply of 230 V to the vehicle electrical system.

Caution

Electrical current! A defective or manipulated automatic circuit breaker can not protect you if the electrical system is defective or overloaded. This bears the risk of death.

Therefore please adhere to the following instructions:

- Only have work done to the electrical system by an authorized specialist repair shop.
- Have the electrical system inspected by an authorized specialist repair shop on a regular basis.
- Check functioning of the earth leakage circuit breaker on a regular basis.
- Never force the "ON" position by manipulating the automatic circuit breaker.



If the 230 V system is electrically defective or overloaded, switch the fuses (4) in the automatic circuit breaker (1) with earth leakage protection to the "OFF" position.

Proceed as follows in this case:

1. Switch off all electrical consumers.
2. Disconnect motorhome's mains input.
3. Switch the cutout (4) in the automatic circuit breaker (1) to the "ON" position.
4. Reconnect the mains input.

If the automatic circuit breaker immediately switches back to the "OFF" position, disconnect

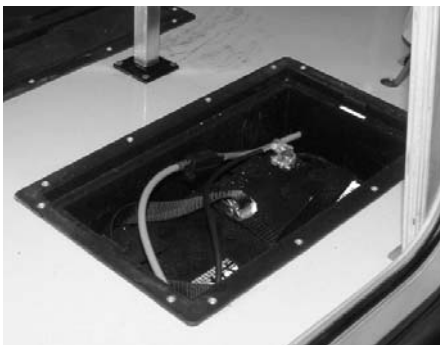
your motorhome's mains input and have the electrical system inspected by an authorized specialist repair shop.

Inspect the earth leakage circuit breaker

1. Reconnect the mains input. The earth leakage circuit breaker can only be checked if the mains input is connected.
2. Open the cover plate (2). The cutouts (4) have to be in the "ON" position.
3. Press the test button (3).
 - If the cutouts (4) jump to the "OFF" position, then the earth leakage circuit breaker is functioning properly. Switch the cutouts (4) to the "ON" position and close the cover plate (2).
 - If the cutouts (4) do not show a response, then the earth leakage circuit breaker is defective.

Disconnect the mains input immediately and have the electrical system checked by an authorized specialist repair shop.

Body batteries



Location:

580 storage compartment, right
670 rear garage floor trough
700 rear garage floor trough

The 12 V system is supplied by one or two body batteries depending on the motorhome. The body battery is charged by the vehicle's generator during travel and by the charging device when the vehicle is connected to a mains input. The charging device provides 10 or 16 A charging current. You have to charge a single body battery for approximately 12 hours and two body batteries for approximately 24 hours to fully charge them. The distribution module switches off all 12 V consumers if the battery

voltage is lower than 10 V. If mains input is not available, then the body battery has to be charged using the vehicle's generator in due time. Check the body battery level using the control panel.

Use every opportunity during your vacation to charge the battery using the installed charging device (mains input). You can check the body battery level using the control panel. If the charge level is not monitored, the body battery is not recharged and the consumers are left running, then the body battery could be totally discharged. This could result in damage or destruction of the battery!

Total discharge protection

An electronic control unit switches all 12 V consumers off if the body batteries have a voltage lower than 10 V. It is possible to switch the consumers on for approximately one minute using the main switch on the control panel. The fridge, the electric step and the consumers supplied directly by the body battery are excluded from this system.

Totally discharged body batteries can be damaged or destroyed and result in malfunctioning or failure of the electrical system. Therefore please adhere to the handling notes on the body batteries and the

Caution

Installation of unsuitable batteries can cause explosion. Battery acid is highly poisonous and corrosive. Therefore please adhere to the handling notes on the body batteries and the following instructions:

- **Only have body batteries replaced by an authorized specialist repair shop.**
- **Never use starter batteries as body batteries.**
- **Always wear gloves and protective goggles when handling batteries.**

following instructions:

- Always start your journey with fully charged body batteries.
- Body batteries with acid contents are low-maintenance. Nevertheless, you should check the acid level on a regular basis. If under the minimum line, fill the battery with distilled water up to the fill line. Gel batteries are maintenance-free.
- Check the battery level using the control panel on a regular basis.

Body batteries

- If the vehicle stands still for four weeks or longer without a mains input, then the minus pole of the body battery should be disconnected!
- Switch off the consumers (e.g. water pump) overnight or when you leave the vehicle.

Important facts about batteries

The body batteries are rechargeable power storage units. The battery power that is consumed has to be fully returned to the battery. The charging unit is usually the only tool used to recharge the body battery. Charging with an unsuitable charging device results in extreme sulphating of the battery plates and therefore to "starvation" of the battery. The generator or a solar power unit are merely supportive charging facilities to allow self-sufficiency for limited periods of time.

What can lead to body battery malfunctioning or failure?

1. Negative battery charging balance = Loss of capacity = Battery failure

Possible cause:

- insufficient charging time (less than 12 hours) using the charging device
- defective charging device
- unsuitable charging device
- by too many subsequently installed electrical consumers (negative energy balance)

2. Totally discharged battery

Possible causes:

- consumers that have not been switched off
- slow discharge in the milliampere range despite switched off main switch due to one of the following for example:
 - electro-magnetic heater shut-off valve
 - solar regulators (output)
 - the control panel
 - a charging device (output)
 - silent consumers (e.g. clocks, control lamps, LEDs).

Example: Silent consumers can consume 55 milliamperes of current. This means that

approximately 1.32 Ah can be taken out of the battery in a day. A fully charged battery is therefore completely discharged in about 2 months! As a result of this type of damage, only part of the battery's capacity can be used after recharging or the battery is destroyed by a short circuit in one of its cells.

3. Self-discharging (independent of long-term consumers).

At 20-25°C self-discharging is very low at 0.1% battery capacity per day. At temperatures over 35°C, the self-discharge level increases to 0.7 % per day, which is seven times higher! When the vehicle is standing still in the summer, the combination of constant consumers and self-discharging without recharging using the charging device results in even faster total discharge of the battery.

Recommendation: recharge the battery using the charging device at least once a month.

For further information, read the handling notes that are attached to every battery.

Halogen lamps



Installed halogen spotlights in the bathroom

The halogen spots are fitted with halogen bulbs of different power ratings.

- To change the bulb, first switch the power supply off.
- The lamp glass is held by a clamping ring. With a small screwdriver, press this ring together until it can be levered over the retaining lug.
- Pull the halogen bulb out of its holder.
- When installing proceed in the reverse order.



Halogen lamps

- To change the bulb, switch off the power supply.
- Pull the halogen bulb out of its holder.
- When installing proceed in the reverse order.

Note

Do not touch the glass body of the new bulb with unprotected fingers because any fingerprints left on it can considerably shorten its service life.

Changing bulbs

Insert a flathead screwdriver in the side slot of the lamp and push the element towards the front.

Caution

Do not turn the coachbuilt lamp towards the ceiling. Maintain clearance of 10 cm between the lamps and all materials such as bed covers for example. Avoid build-up of heat caused by opened top cabinet doors near the halogen spotlights. Exposure to heat for too long can discolour the door surface.

Freshwater supply

Caution

Only fill the freshwater system with clean drinking water!

Fuel is very injurious to health and even a few drops of fuel render the entire freshwater system unusable.

- **When the vehicle is being filled with fuel by people who do not know the motorhome well, make sure that the tank openings for fuel and water are not confused.**
- **Always lock the filler openings for freshwater.**
- **If the motorhome is not heated at below-zero temperatures, then the freshwater and sewage water systems can be damaged by freezing. Empty all containers, hoses and lines if there is any danger of freezing.**

The water supply of your Karmann motorhome is by means of the built-in water tank. An electric pump pumps the water to the consumers in kitchen and bathroom.



Drinking water filler opening

The water container is filled using the lockable tank cap on the driver's side of your motorhome. Close all discharge valves and taps etc. beforehand.



Water container

Location:

Under the rear bench of the Dinette.

The freshwater level can be monitored on the control panel (Page 6-1).

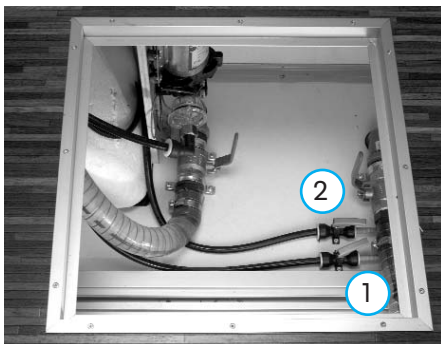
Emptying and cleaning

Note

Switch the water pump off on the control panel, because the automatic pressure switch is activated upon emptying the tank and the pump could be damaged by running dry.

Open the red cleaning cover under the bench by twisting it.

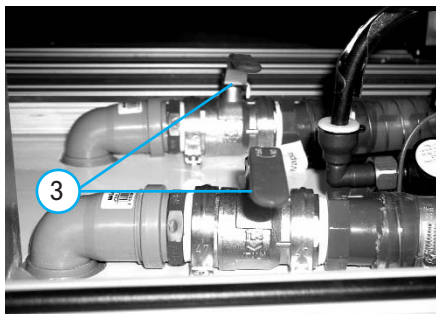
Freshwater supply



Open the valves to empty warm (1) and cold (2) water and the shut-off valves (3) to empty the entire freshwater system. (illustration shows Ontario 580)

Notes

- Shut-off valves for freshwater and sewage water:
Lever perpendicular to line: closed
Lever parallel to line: open
- Rinse the water container and disinfect it if necessary.
- After cleaning, close all valves and the tank cover.
- Fill the tank with freshwater using the filler openings.
- Switch the water pump on using the control panel and shut off all fittings as soon as freshwater flows out.



Caution

Unhealthy bacteria can enter the freshwater system and cause infection. Do not use generally-available cleaning materials or fluids to clean the tank. Use special antibacterial cleaner from a specialist dealer. Note the instructions for use of the disinfectant and freshwater regulations.



Pump for freshwater system

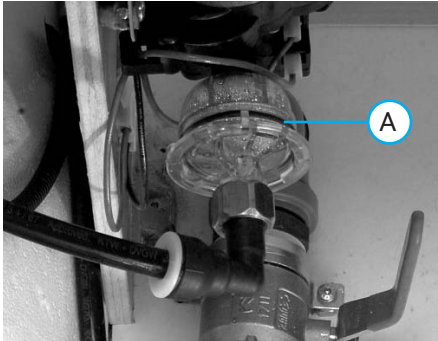
Location:

580 under the table
670 side flap, front left
700 side flap, center left

The filter A (depicted on the following page) of the freshwater pump should be cleaned at least once a year under running water. Discharge the freshwater from the system before cleaning the filter.

Empty the water container as described above. Open all taps into the central position between "hot" and "cold" and pump out the water

Freshwater supply



remaining in the pipes. Subsequently switch the pump off and disconnect the pipe system from the pump at the input and output connections.

Lay a cloth under the pump area. Switch the pump on again and empty the pump itself. Do not reattach the pipes to the pump while it is decommissioned. In order to avoid damage, all taps should remain open.

Caution

Upon starting the water pump, ignition sparks could be emitted and cause an explosion. Never switch the water pump on if there is a risk of explosion in the area (e.g. due to leaked gas).

The motor of the water pump can become very hot. Never cover the water pump and do not store any combustible materials or objects that can be deformed by heat near the water pump.

The water pump can be damaged by high pressure or running dry.

- **The operating pressure should not exceed the specified values for the water pump.**
- **Do not switch the pump on if the water container is empty.**

Notes

- Only use clean water in order to fill the water container.
- Before you can draw water, you must first switch on the current supply of the pump at the control panel.
- As water which has stood in the tank and the pipelines becomes undrinkable after a short time, you should rinse through all pipes with freshwater before each commissioning.
- In order to do this, open the taps in the bathroom and kitchen.

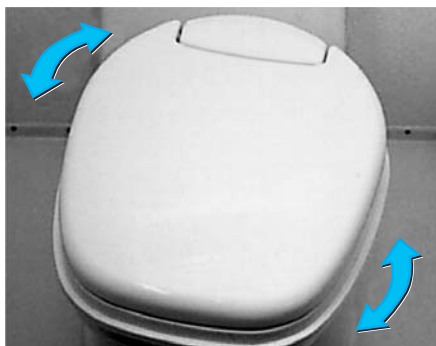
Sink with mixer tap



The sink of your Karmann motorhome is supplied with a mixer tap, which functions like a standard household tap. However, first make sure that the pump switch is on (see control panel, Page 6-1).

Instructions for care of your sink can be read on Page 9-2.

Toilet



In order to gain more room in the bathroom, the toilet can be rotated. The toilet is supplied with a removable sewage tank and an electric flush. The water for flushing the toilet is taken from the water container, which means that the contents of the tank is reduced with each flush!

Before using the toilet for the first time, the sewage tank must be filled with a suitable chemical.

Caution

Noxious substances are used in the WC system. Please pay attention to the manufacturer's instructions. If the motorhome is not heated at below-zero temperatures, then the WC system can be damaged by freezing. Empty all containers, hoses and lines if there is any danger of freezing.

Toilet

Remove the sewage tank (see next page) and place it upright on the ground. Swing the emptying nozzle upwards and remove the cap.

Use the amount of sanitary chemical recommended by the manufacturer and add enough water until the bottom of the tank is covered. Do not on any account pour the chemical directly into the toilet pan.

Follow the manufacturer's instructions exactly when using the chemical. Avoid overdosing at all costs, as this could damage the bacteria used in water authority sewage plants.

Close the tank and return it to its holder. If there is water in the water container, the toilet can be used.

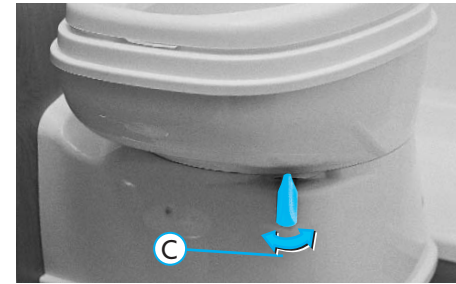


Water flush with fill level indicator

Activate the flush by pushing button A. Water only flows for as long as the button remains pressed. Before using the toilet, activate the flush briefly in order to allow some water to enter the bowl. After using, press lever C under the bowl in an anticlockwise direction in order to open the toilet bowl base and operate the flush. Then return the lever to its original position.

The waste is collected in the sewage tank, which holds 17 litres. The sewage tank must be emptied when indicator lamp B is illuminated.

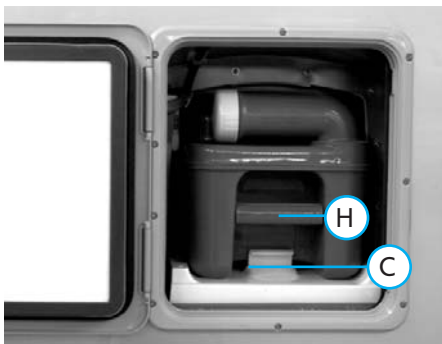
The tank is then full up to approx. 15 litres. The remaining capacity is sufficient for around 5 flushes.



Notes

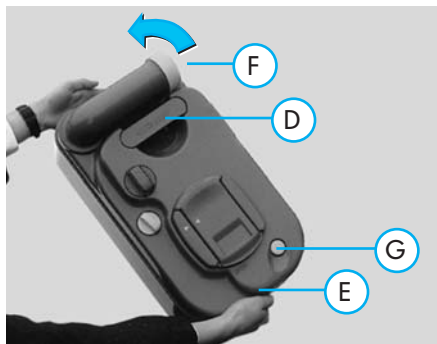
- Use original Thetford toilet paper or another fast-dissolving paper. Other papers may damage the mechanism of the sewage tank.
- Only use water and detergent to clean the sanitary equipment. On no account use cleaners which contain vinegar or alcohol.

Sewage tank



The sewage tank is accessible from the outside.

- To remove and empty the tank press yellow bracket C upwards by the front end and then pull out the tank horizontally using carrier handle H. The tank slider closes automatically.
- Hold the tank vertically downwards while carrying it to a toilet or disposal station.
- Place the tank in an upright position, turn emptying nozzle F to the top and remove the cap.



- To empty, lift the tank at handles D and E.
- Press air intake button G until the tank is empty.

Caution

Do not exert force when pushing the sewage tank into place. This can result in serious damage.

Notes

- Only press the emptying button when the emptying nozzle is pointing downwards.
- Clean the tank from the inside and outside after emptying.
- Pour a sanitary chemical into the tank as described on the previous page.
- Screw on the cap and return the emptying nozzle to its original position.
- Then push the tank back into the holder until it clicks into position and then close the disposal flap.

🔑 The sewage tank may only be emptied at special disposal stations!

Note

Please read the operating instructions of the toilet manufacturer supplied.

Sewage water tank



Location:

In the middle of the body reachable via a floor panel.

The sewage water tank is under the floor of the body.

The sewage water level is shown on the control panel (Page 7-2). Before allowing sewage water to flow into the tank, please make sure that the discharge tap is closed.

Discharge sewage water



Location:

580 under the table
670 side flap, front left
700 side flap, center left

🔑 *Only empty your sewage water tank at designated disposal stations or at camping sites which are provided with a suitable sewage disposal plant. Information as to which local authorities or camping sites are provided with suitable equipment can be obtained CIVD documents or camping guides.*

If no suitable disposal facilities are available, collect the sewage water in canisters and dispose of it into the public sewage system.

Caution

If the motorhome is not heated at below-zero temperatures, then the freshwater and sewage water systems can be damaged by freezing.

Empty all containers, hoses and lines if there is any danger of freezing.



Exterior

Washing

The vehicle can be washed with special vehicle shampoo.

Chemical cleaners, alcohol, glass cleaner or cleaners containing benzene or similar may not be used. The cleaners may not contain any softeners as this can lead to cracks or brittleness. Instead, clean the acrylic windows with water (never dry), a clean sponge and a soft cloth.

Stickers and window pictures can also damage the windows.

The window seals should not be cleaned with abrasives or other cleaning agents. Only apply talcum powder once a year.

Decorative strips and names or writing

The decorative strips and writing should not be cleaned with high-pressure cleaners or tar removers, as they can become detached or damaged.

Otherwise they can be cleaned in the same way as the rest of the vehicle surface.

Conserving the exterior finish

The same applies to the conservation of the body as to the basic vehicle. Timely conservation makes cleaning easier, as dirt does not adhere so easily. But even if conservation liquid is used regularly for washing, the aluminium outer walls of the vehicle should be treated at least twice a year with hard wax polish. At least once a year the glass fibre composite parts of the body, the roof and the coachbuilt, should be treated with a polish suitable for gel coat (marine sector) and should then be sealed.

Underfloor protection

Additional underfloor protection is not necessary for the body, as it is provided with a glass fibre surface.

As damage to this surface cannot be avoided while driving, the underfloor of the body should be checked and if necessary repaired at regular intervals, preferably during the annual sealing check.

Interior

Floor covering

The floor covering of your Karmann motorhome can be cleaned with a normal household cleaner.

Upholstery and carpets

Upholstery and carpets should be cleaned with special upholstery or carpet cleaner.

Curtains

Do not wash curtains yourself. Have them dry cleaned, as otherwise they can shrink or the fire-resistant treatment may be washed out.

Furniture

All furniture surfaces are plastic-coated. It is possible to clean them with commercially-available cleaning materials.

• Note

Stickers or adhesive tape on the furniture can damage the surfaces!

Cooker, sink and mixer tap

The stainless steel surfaces of sink and gas cooker can be cleaned with commercially-available care and cleaning materials.

When cleaning the gas cooker, ensure that the thermocouples on the burners are not damaged or bent. The gas burners should be cleaned at regular intervals.

Do not use abrasive cleaners on the tap in order to avoid damage to the surface.

Fridge

In order to avoid buildup of ice, the fridge should be defrosted regularly in accordance with the manufacturer's instructions. In order to avoid damage, defrosting should not be accelerated by means of additional heat, for example a hair dryer. Removal of ice layers with a sharp object can also lead to damage. Water with the addition of a little vinegar is a suitable cleaning solution. If there are longer interruptions to operation, the fridge door

should remain somewhat open in order to prevent smells and mould.

In winter the air vents of the fridge can be protected with special winter covers.

Bathroom and toilet

The plastic items in the bathroom and toilet may on no account be cleaned with vinegar or cleaners containing alcohol.

Do not use abrasive cleaners. Sand can damage the surface of plastic items. First rinse the washbasin thoroughly with water before cleaning it with a cloth and detergent if necessary. Further cleaning instructions can be found in the operating instructions of the toilet manufacturer which are included.

Winter operation

Your Karmann-Mobil motorhome is designed for use winter as well. In order to avoid disturbances to operation, however, you should consider the following points:

- **Fresh and sewage water equipment**

These also remain functional at temperatures below zero. However, the vehicle has to be heated continuously using the body heater.

Addition of cooking salt over the sink drain reduces the risk of the sewage water slider of icing up.

- **Butane** does not turn into gas at temperatures below 0°C. Propane is unproblematic in this respect.
- The **anti-freeze protective device of the heating system** empties the boiler automatically at temperatures of approx. 3°C in the boiler area. If the vehicle is heated, the temperature in the boiler area is generally

higher, however. If the temperature should sink below 3°C, please follow the procedure described with regard to the safety valve on Page 6-5.

- **Note**

As the fall in pressure in the freshwater system sets the freshwater pump into circulation through the automatic emptying of the boiler, the entire freshwater supply can be discharged via the boiler. This can cause damage to the pump if it runs dry. Therefore always set the pump or main switch on the control panel to "Off" when leaving the vehicle (Page 7-2).

In winter check after every journey that the **automatic venting system** of the **gas cylinder box** is not blocked by ice or snow.

- Winter covers are available for the vent openings of the fridge with gas operation in winter as an optional extra. The covers may

also remain in place during operation in winter.

- Sufficient ventilation is particularly important in winter, in order to eliminate the high humidity which arises because of cooking, damp clothes etc. Humidity can also be reduced with a commercial dehumidifier.
- Free the **roof hatch** regularly of snow in order to free penetration of melting water through the vents.
- Do not secure your vehicle with the hand-brake (danger of freezing). Engage a gear and place wedges under the wheels.
- A **winter partition** is available to separate the driver's cabin from the rest of the vehicle.

Immobilisation of the vehicle in winter

- Fill the fuel tank completely with fuel.
 - Charge the body battery and disconnect the terminals, as low consumers, such as the solenoid valve of the freshwater pipelines or continuous stand-by function of the radio (special equipment), can cause the battery to discharge.
 - Empty the water container and freshwater pipes. (In order to ensure that emptying is complete, the vehicle must stand completely horizontal).
 - To do this, empty the water container as described on page 8-1.
 - Then open all taps to the position between "warm" and "cold" and pump the water remaining in the line system out. Subsequently switch the pump off and disconnect the pipe system from the pump at the input and output connections. Remove the filter.
 - **Notes**
 - Lay a cloth under the pump area.
 - Do not reconnect the pipelines to the pump.
 - In order to avoid damage, all taps should remain open.
 - Empty sewage water tank.
 - Empty sewage tank.
 - Empty heating/hot water heater by opening the hot water taps in the kitchen and bathroom. The switch at the frost valve of the boiler is set to "0", i.e. the valve is open. This ensures emptying of the boiler.
 - If the body battery is not disconnected, because the vehicle should only be immobilised for a short time, it is absolutely advisable to empty the boiler with the front protection valve in the winter, in order to avoid uncontrolled draining of the system during frosty periods.
- Check the state of the battery regularly (must not be below 10 volts).
 - Close the main shutoff valve on the gas cylinder and the shutoff valves on all the other equipment.
 - Slightly open the fridge door.

Gas installation

The following table shows a list of common faults. Please see the operating instructions for information on malfunctions that can occur in special equipment devices (e.g. air conditioner, etc.).

Defect	Possible cause	Remedy
Gas smell, unusually high amount of gas used	Leaky gas system	Open doors and windows and turn off the entire gas system. Avoid all activities that could cause ignition (e.g. open fire, smoking or electrical switches). Seek a specialist repair shop and have the system inspected for leaks.
No gas to consumer devices	Gas cylinder valve closed Shut-off valve in the supply line closed Outside temperature too low, gas cylinders filled with butane Malfunction in the installed device	Open the gas cylinder valve Open the shut-off valve During winter, always use pure propane (down to -32°C) Contact device manufacturer service
Gas cooker can not be ignited. The flame dies out upon releasing the knob.	Ignition safeguard defective	Contact specialist workshop

Gas installation

Defect	Possible cause	Remedy
Lack of correct flame formation. e.g. at gas cooker	Gas pressure controller defective	Contact specialist workshop
When controller set at "small flame", flame extinguishes	Ignition protection sensor incorrectly adjusted	Contact specialist workshop
Fridge fails to work with gas mode	Gas cylinder valve or shut-off valve closed	Open gas supply

Heating/ hot water

Defect	Possible cause	Remedy
"Fault" pilot light (red) on Trumatic control element lights up permanently	No gas Air in pipe Protective device defective	See above Switch unit off and switch on again after 10 minutes Consult Truma Service
"Fault" pilot light (red) on Trumatic control element flashing.	Surface-mounted battery too weak	Charge battery Replace if battery defectiv

Heating/ hot water

Defect	Possible cause	Remedy
"Operating" (green) lamp at the Trumatic device is not illuminated.	Cutout triggered	Contact specialist workshop
"Operating" (green) lamp at the Trumatic device is not illuminated.	Body battery is too weak or faulty	Charge or change battery
Frost protection valve has opened and emptied the boiler	Body battery is too weak or faulty Temperature in boiler environment under 3°C	Close valve by hand and charge or change battery Warm up body (the valve can only be closed at 8°C)
Frost protection valve cannot be closed.	Body battery is too weak or faulty Frost protection valve faulty	Charge or change battery Contact specialist workshop
Water drips from safety/ discharge valve	Water pressure too high	Check pump pressure, max. 2.8 bar
Heating switches to fault mode after longer operating time	Hot air heat exchanger blocked Gas pressure regulator iced up Proportion of butane in gas cylinder too high	Check the exit opening Use a deicer Use propane

Power supply

Defect	Possible cause	Remedy
The body battery does not provide voltage.	Body battery totally discharged	<p>If totally discharged, the body battery is damaged beyond repair and has to be replaced.</p> <p>If not used for long periods of time, the body battery should be charged fully and disconnected. Watch out for silent consumers (e.g. frost protection valve)</p>
The body battery can not be charged during travel.	<p>Connector contacts and connections faulty</p> <p>Cutout or relay in charging device faulty</p>	<p>Check and correct fault if necessary</p> <p>Contact specialist workshop</p>
Body battery does not charge when connected to 230 V network (230 V charging is indicated by a green light on the control panel).	<p>230 V automatic circuit breaker is switched off</p> <p>Fuse or relay in charging device faulty</p>	<p>Switch on the automatic circuit breaker</p> <p>Contact specialist workshop</p>

Power supply

Defect	Possible cause	Remedy
Body battery does not charge when connected to 230 V network	Battery voltage too low Connector contacts and connections faulty	Charge body battery, start motor and allow to run for approx. 30 seconds. Battery voltage rises over 12 V and charging starts. Check and correct fault if necessary
12 V operation of fridge not possible during travel	12 V switch on fridge off Fuse in the fuse box defective Fridge or cabling faulty Relay in charging device faulty Bad electrical contacts (too loose)	Set switch A to 12 V position (Page 6-8) Replace fuse (Page 7-4) Contact specialist workshop Contact specialist workshop Replace charger Check and correct fault if necessary
230 V operation of fridge not possible	Earth leakage circuit breaker has been triggered	Switch on the circuit breaker again after error inspection (p. 7-5).

Water supply

Defect	Possible cause	Remedy
No freshwater	Water container empty Water pump fuse defective Water pump faulty	Fill water container Replace fuse (Page 7-4) Contact specialist workshop
Water in interior	Pipeline system leaks	Find fault and seal
Freshwater / discharge display on control panel does not function	Connection of control panel and measuring probe interrupted Measuring probe defective Control panel defective Measuring probe dirty because of residues in water	Localise fault and close connection Replace measuring probe Contact specialist workshop Clean measuring probe

Weights

Values in kg	Tech. permitted total weight ¹⁾	Weight in driving condition ²⁾	Permissible front axle load	Permissible rear axle load
Ontario 580	3,500 kg / 4,000 kg	2,900 kg/2,950 kg ³⁾	1,850 kg / 2,100 kg	2,000 kg / 2,400 kg
Ontario 670	3,500 kg / 4,000 kg	3,100 kg/3,150 kg ³⁾	1,850 kg / 2,100 kg	2,000 kg / 2,400 kg
Ontario 700	3,500 kg / 4,000 kg	3,150 kg/3,200 kg ³⁾	1,850 kg / 2,100 kg	2,000 kg / 2,400 kg
Ontario 700 HS	3,500 kg / 4,000 kg	3,150 kg/3,200 kg ³⁾	1,850 kg / 2,100 kg	2,000 kg / 2,400 kg

1) The "Technically permissible total weight when loaded" must not ever be exceeded for technical reasons.

2) incl. 75 kg driver , coolant, oil, tools, spare wheel, 100 l freshwater, gas cylinders, boiler contents, 90 % diesel

3) Value 1: Model with standard engine
Value 2: Model with optional engine

Notes

The empty weight is increased for special models and extra equipment -e.g. air conditioning, trailer - and through subsequent installation of accessories, which means that the useful load and its corresponding value are lower.

If heavy loads are carried, they should be placed as low as possible between the axles in the interest of good handling characteristics. The permissible axle loads and the technically permissible overall weight may not be exceeded in any situation. Please also consider that driving characteristics change

because of the loading. Driving style and speed must therefore be adapted.

We reserve the right to a weight variation of + 5%. Different levels of equipment, such as automatic gearbox or four-wheel drive may change the given weights.

Dimensions ¹⁾

Values in mm	Ontario 580	Ontario 670	Ontario 700 / 700 HS
Wheelbase	3.000 mm	4.004 mm	4.004 mm
Total length ³⁾	5.700 mm	6.720 mm	7.040 mm
Total width	2.300 mm	2.300 mm	2.300 mm
Total height ²⁾	3.250 mm	3.250 mm	3.250 mm
Inside width	2.170 mm	2.170 mm	2.170 mm
Dimensions of the front Dinette	1.880 x 1.100 mm	1.390 x 390 mm	1.900 x 1.100 mm
Dimensions of the rear bed / rear seating group	-	2.150 x 880 mm (x2)	2.120 x 1.480 mm
Dimensions of the overcab bed	2.100 x 1.600 mm	2.100 x 1.600 mm	2.100 x 1.600 mm
Dimensions of the lengthwise bench	1.820 x 820 mm	760 x 610 mm	-

All other dimensions are stated in the operating instructions of the basic chassis.

1) This information refers to the basic Ontario model. Certain model versions and additional equipment – e.g. different wheel sizes – can cause variations.

2) Without additional carriers for surfboards, kayak etc.

3) Without cycle rack.

Liquid gas supply

2 gas cylindersat 11 kg each
Pressure regulator30 mbar

230 Volt network

Frequency50 Hz
Consumption
- Fridge125 Watt
Charger current.....max. 12 A

Body battery (acid battery)105 AH

Water supply

- Water container with electric pressure pump and sensor for freshwater level.
- Discharge valve for water container
- Line emptying valve

Water container:150 litres
Optional100 litres

Water disposal

- sewage water tank with level sensor
- Discharge valve in the double floor

Sewage water tank100 litres

Toilet

Sewage tank17 litres
Electric flush

Vehicle identification number

The base vehicle of your motorhome has a vehicle identification number (Chassis No.). Always use this number for warranty and spare parts claims. You can find the vehicle identification number beside the engine compartment lock under the hood and on the wheel arch inside on the right side (passenger side) under a cap.

Body nameplate

The Karmann- Mobil nameplate is located in the door entry of the body. It displays information about the body manufacturer and the body model. For vehicles with EC model authorization, additional data such as the vehicle identification number of the base vehicle and the maximum permitted total weight and the axle loads are included. The body plate should not be removed. It serves to identify the vehicle and documents the owner along with the vehicle documents.

- 1 Name of the body manufacturer
- 2 Body manufacturer's range name
- 3 Body manufacturer code
- 4 Body manufacturer's model name
- 5 EC authorization number for vehicle
- 6 Stage of expansion of the base vehicle
- 7 Chassis No. of the base vehicle

- 8 Max. permitted total weight
- 9 Max. permitted total towing weight
- 10 Max. permitted front axle load
- 11 Max. permitted rear axle load
- 12 Max. permitted axle load of the second rear axle for vehicles with twin axle



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