

Congratulations on your new Malibu box-type van!

We congratulate you to your Malibu box-type van and thank you that you made your decision for a quality box-type van from Malibu....

Taking a short trip or long trip, driving on poor or good roads, going to the seaside, the mountains or simply in the countryside: as a rolling home, your vehicle makes sure that you always feel at home when on the go and that you enjoy your holiday.

We have carefully prepared this instruction manual for you so that you can use and enjoy the advantages of your Malibu box-type van. It provides you with a broad range of information and tips. The care and thus, the value retention of your Malibu box-type van is also considered. Please ensure that the operating instructions are used properly. You will also be provided with separate documents for the devices installed as well as the basic vehicle of your vehicle.

Please also refer to your trusted authorised Malibu authorised workshop for maintenance work or whenever you need help. They know your vehicle better than anyone and will always endeavour to fulfil your requests quickly and reliably.

And now we wish you great enjoyment, the best relaxation and always a good and safe trip with your vehicle.

Your Malibu team

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Delivery protocol, Malibu box-type van

Delivery to end customer

Vehicle data

Model: _____

Customer: _____

Chassis number: _____

Registration date: _____

Odometer reading: _____

Number plate: _____

➤ The delivery protocol must be discussed and completed together with the customer at the same time as the vehicle is handed over.
Do not remove the original from the service record.

➤ A copy of the check list does not need to be sent to the factory but it may be requested under special circumstances.

➤ Any damage must be marked on the image and entered into the text field.

1st Visual inspection for external damage



10800010



10800011

Description:

Version: June 2014

Delivery protocol, Malibu box-type van

Delivery to end customer

2. Document check list / interior / accessories and devices

Position	Check list			Activity:	Yes	No
1	Vehicle documents for box-type van			handed over to customer		
2	Instruction manual for cabin and devices			handed over to customer		
3	Two sets of keys for the main cabin & box-type van			handed over to customer		
4	Gas test certificate, approval certificate I, approval certificate II			handed over to customer		
5	First aid kit, breakdown triangle, vehicle tool kit			handed over to customer		
6	Damages to furniture			checked with customer		
7	Upholstery, seats, driver cabin seats and seat belts			checked with customer		
8	Curtains, roller blinds including front blinds (handling, care and maintenance)			instruct customer		
9	Function of the main cabin window and skylights			check with customer and instruct		
10	Radio, starting up / operation			instruct customer		
11	Control Panel, charger, batteries, electric power supply, operation, maintenance If the vehicle is not used, it must be connected to a 230 V connection for 2 days at least every 4 weeks.			checked with customer and instructions provided		
12	Battery charge levels			checked on the control panel		
	Living area battery 1	Living area battery 2	Starter battery			
	V	V	V			
13	Power consumption on 12 V and 220			checked with customer		
14	Windscreen wipers, screen wiper water, horn			checked with customer		
15	Table, furniture, shutters, doors and fittings			checked with customer and instructions provided		
16	Tyre inflation pressure (see user manual), tighten wheel nuts / bolts to torque			checked with customer and instructions provided		
17	Toilet (handling, septic tank, disposal....)			instruct customer		
18	Water pump, water supply, fresh and waste water tank			instruct customer		
19	Special accessories according to order			checked with customer and instructions provided		
20	If there is a gas control unit, light all gas installations and keep them burning for a moment on both a small and a big flame			checked with customer and instructions provided		
21	Main cabin doors including fly screen and outer shutter			checked with customer		
22	Warm air heating system (if serial production), start-up			instruct customer		
23	Vehicle cleanliness (inside and out)			checked with customer		

Delivery protocol, Malibu box-type van

Delivery to end customer

- Please add a short description of any complaints under description at the bottom of the page and repair according to factory instructions.
- The box-type van is in working order with the exception of the complaints recorded.

Date / stamp / trading partner signature

Date / customer signature

Description

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Delivery protocol

Guarantee certificate

Do not remove the original from the service record

Customer address for first-time owners

Surname, Name _____

Street / no. _____

Post code, Town: _____

Country _____

Tel. no. _____ E-mail _____

Vehicle data

Model _____

Chassis number _____

Registration date _____

Dealer information

Dealer's name _____

Delivery date _____

➤ *The trading partner must send a copy to ga.kundendienst@carthago.com on the day of the handover if there has been a change of ownership.*

Registered owner / subsequent owner

Vehicle data

Chassis number

Registration date

First owner

Please enter the name of the first registered owner when handing over:

1

Name	First name	Postcode	Town	Street
Telephone	E-mail	Odometer reading at handover	Registered keeper from/until	Date of handover

Subsequent owner

Please enter the name(s) of any subsequent owner(s):

2

Name	First name	Postcode	Town	Street
Telephone	E-mail	Odometer reading at handover	Registered keeper from/until	Date of handover

3

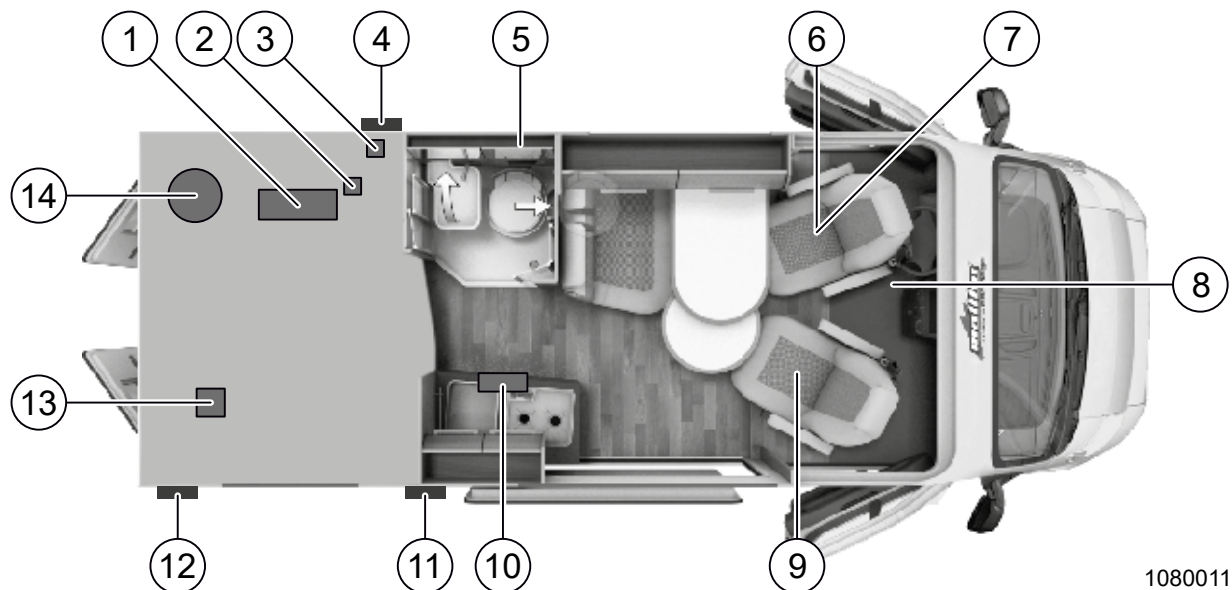
Name	First name	Postcode	Town	Street
Telephone	E-mail	Odometer reading at handover	Registered keeper from/until	Date of handover

4

Name	First name	Postcode	Town	Street
Telephone	E-mail	Odometer reading at handover	Registered keeper from/until	Date of handover

➤ The trading partner must send a copy to ga.kundendienst@carthago.com on the day of the handover if there has been a change of ownership.

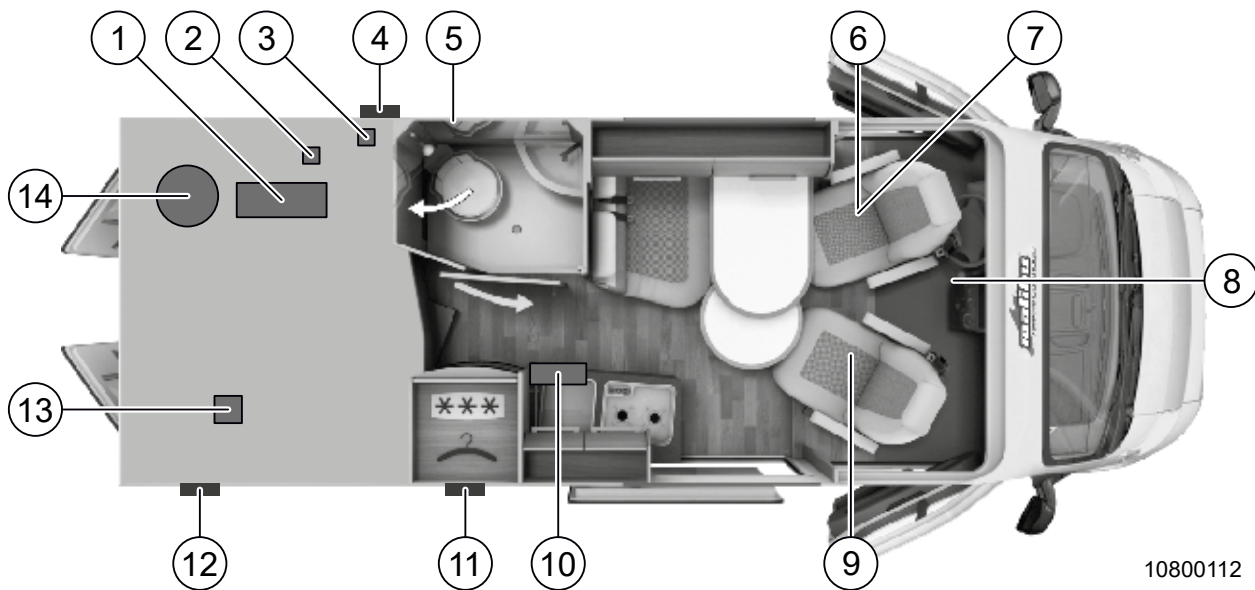
Overview Malibu 540



10800113

- 1** Heater & drain valve
- 2** Gas shut-off valve, heater
- 3** Residual-current circuit-breaker
- 4** 230 V external socket
- 5** Cassette toilet door; 2 A fuse for the toilet
- 6** Living area battery
- 7** EBL electric block & fuses;
Main fuse 50 A
- 8** Fiat starter battery & 50 A main fuse
- 9** Additional living area battery with 50 A fuse; SA
- 10** Gas shut-off valve, cooker and fridge
- 11** Waste water; drain valve
- 12** Filler neck, fresh water
- 13** Service access; water with drain tap
- 14** Service access; gas bottles

Overview Malibu 6xx



- 1** Heater & drain valve
- 2** Gas shut-off valve, heater
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Chapter Overview

This chapter contains important information and instructions for using your Malibu box-type van.

The information affects, in detail:

- putting into operation
- vehicle-specific documents for the Malibu
- general notes
- Warranty, guarantee and customer services
- Environmental notes

1 Information on documentation

1.1 Before putting into operation

Before starting for the first time, read through this user manual completely!

Always keep the user manual in the Malibu box-type van.

Hand over all safety guidelines, also to other users.

In the event of a change of ownership, these documents must also be handed over.

1.2 Malibu documents

You are handed over a folder along with your Malibu that contains the following accompanying vehicle documents:

- user manual
- service manual enclosed separately in the Annex
- dealer register

1.3 Additional documents

- Test certificate for liquid gas, with test sticker
- Complete set of documents of the vehicle manufacturer
- User manual for the liquid gas built-in cooker
- User manual for the cassette toilet
- User manual for the heater
- User manual for the fridge
- User manual for other special equipment facilities

This user manual contains sections where a description is made of the model-related equipment or special equipment (SA). The sections are not marked separately. The equipment of the Malibu box-type van may therefore deviate from many figures or descriptions. A description of the special equipment is then made if this is required. Observe the user manuals enclosed separately.

If the instructions in this user manual are disregarded thus leading to damage to the Malibu box-type van, all claims for guarantee and warranty are rendered invalid.

Our Malibu box-type vans are exposed to continuous development. Please understand that changes in form, equipment and technology are reserved. For this purpose, Malibu GmbH & Co. KG is not liable for contents derived from this user manual.

A description is made for the equipment known and introduced at the time of printing. Errors reserved. Translation, reprinting and duplication, even excerpts, are only permitted with the written consent of Malibu GmbH & Co. KG.

1.4 General

The Malibu box-type van has been built corresponding to the state of the art technologies and generally accepted safety-related rules. However, personal injury or damage may result on the Malibu box-type van if the safety instructions in this user manual are disregarded.

Use the vehicle only in a technically sound condition.

Observe the user manual.

Malfunctions that impair the safety of persons or the Malibu box-type van must be rectified by specialist personnel immediately.

The brake system and the gas system of the Malibu box-type van must only be checked and repaired by an authorised specialist workshop.

Modifications to the main cabin may only be carried out with the approval of Malibu GmbH & Co. KG.

The Malibu box-type van is only intended for the transportation of persons.

Transport luggage and accessories only up until the technically permissible total mass.

The test and inspection deadlines specified in the user manual must be observed.

All dimensions and weights are "approximate" specifications.

The details right - left - front - back - always refer to the vehicle as viewed in the direction of travel.



→ Our vehicles are manufactured with high quality craftsmanship and the best high-tech technology. Nevertheless, faults can never be completely ruled out. In order to ensure that no problems occur during your first holiday trip, we recommend that you try out your motor home in the vicinity of your contract partner for the first few days.

1.5 Warranty, guarantee and customer services



→ If the instructions listed in this instruction manual are disregarded and damage occurs to the Malibu box-type van, all claims for guarantee and warranty are rendered invalid.

Warranty and / or guarantee processing is carried out according to the directive 1999/44/EC concerning consumer goods, and the conditions usual for the country.

Your contract partner is responsible in event of warranty and / or guarantee processing, or in event of service.

The vehicle has been built for normal and usual mode of driving. This also includes observing the loading capacity. Overloading the vehicle in any form whatsoever, leads to the loss of the warranty and guarantee claims. Any liability shall be excluded as far as this derives from incorrect use.

All **design modifications** to the vehicle and / or device, or the use of spare parts that are not original Malibu spare parts as well as non-observance of the user manual leads to the exclusion of the warranty and / or guarantee processing and to the exclusion of liability claims.

The same applies in case changes are made by the customer with respect to carrying out painting work, being for partial and complete paintworking. In each case, an agreement must be made with us or our contract partner before carrying out these measures.

Principally, a written release / approval is required by Malibu GmbH & Co. KG. In event of violation, the warranty and / or guarantee claims shall be invalidated, leading to the exclusion of liability claims.

Spare parts can be procured from our customer services throughout Europe. When contacting customer services, please always specify the model and chassis number!

This information can be found on the type plate.

1.6 Environmental notes



- The following basically applies: all types of waste-water and domestic waste must not be disposed of in road drains or in open nature.
- The waste-water tank and the toilet cassette must only be emptied at disposal stations on camping places or at disposal possibilities especially identified for this purpose. When staying overnight in cities and communities, observe the information of the pitches or ask about disposal possibilities.
- Empty the waste water tank as often as possible, even if the waste water tank has not been completely filled (hygiene). Where possible, rinse out the waste water tank and drain line with fresh water after emptying each time.
- Never allow the toilet cassette to become too full. The toilet cassette must be emptied immediately when the fill level indicator illuminates at the latest.
- Also separate domestic refuse when travelling, into glass, cans, plastic and wet waste. Ask about disposal possibilities at the respective host community. Domestic waste may be disposed of in rubbish bins at parking lots.
- Empty the rubbish bins in the intended dustbins or containers as often as possible. This avoids unpleasant odours and cumbersome collection or rubbish.
- When stationary, avoid unnecessary idling of the vehicle engine. A cold engine emits a particularly high quantity of harmful substances when idling. The quickest way to reach operating temperature of the engine is by driving.
- Use an environmentally friendly and easily biodegradable WC chemical with low dosage for the toilet.
- When remaining in cities and communities for longer periods, look for a parking area indicated especially for motorhomes. Inform about possibilities for parking at the respective city or community.

Chapter Overview

In this chapter, you will find important instructions on safety. The safety instructions serve to protect persons and property.

The information affects, in detail:

- The legend
- the general conduct when dealing with the Malibu box-type van
- the fire protection and conduct in event of fire
- the road worthiness of the Malibu box-type van
- Trailer operation
- the gas system of the Malibu box-type van
- the electrical system of the Malibu box-type van
- the water system of the Malibu box-type van

2 Safety guidelines

2.1 Legend



Danger!

Disregarding this symbol may lead to potential personal injury.



Caution!

Disregarding this symbol may lead to damage to the vehicle.



This symbol is a note for the user that the device can only be used with the knowledge from the manual (user information of the manufacturer).



This symbol is information for an environmentally-friendly conduct.



This symbol represents special features and recommendations.



This symbol represents designated seats with seat according to figure 12 of the vehicle documents.

2.2 General safety guidelines



- Ensure for sufficient ventilation. Never cover or block the forced ventilation installed (roof hood with forced ventilation or mushroom shaped ventilator), e.g., with a winter mat. Keep snow and leaves away from forced ventilation systems.
There is a risk of asphyxiation from increased CO₂ content.



- The respective operating and operating instructions are decisive for the built-in appliances (gas heater, cooking area, fridge, etc.) as well as the user manual for the basic vehicle (engine, brakes, etc.).
Observe in all cases!
- The dimensions, weight and driving behaviour of the Malibu box-type van may change if accessories or special equipment are installed. In some cases, the attachment parts may have to be entered in the vehicle documents.
- Use new rims and tyres that are approved for the Malibu box-type van. Details for the sizes of the approved rims and tyres can be obtained in the vehicle documents.
- When parking the Malibu box-type van, apply the handbrake.



- When leaving the vehicle, lock all doors, exterior hatches and windows..
- Warning triangle and first aid kit in accordance with DIN 13 164 are legally prescribed in Germany and must be carried on-board. Observe the expiry date!
- When selling the Malibu box-type van, hand over the new owner the user manual of the Malibu box-type van and the complete operating instructions of the built-in appliances.
- Always carry sufficient warning vests corresponding with the respective legal guidelines. The warning vests must correspond with the standard DIN EN 471:2003+A1 or EN ISO 20471:2013. All warning equipment must be in an operational state.

2.3 Fire protection

2.3.1 Avoiding the risk of fire



- Never leave children alone in the Malibu box-type van.
- Keep combustible materials away from heating devices and cooking appliances.
- Never use portable heating devices or cooking appliances.
- Modifications to the electrical system, the gas system or the built-in appliances must only be carried out by an authorised specialist workshop.

2.3.2 Fire fighting



- Always keep a dry powder fire extinguisher (at least 1 kg) in the Malibu box-type van: it must be approved, checked and accessible ready for use.
- The fire extinguisher must be inspected by certified specialist personnel at regular intervals. Observe the inspection date.
- The fire extinguisher is not included in the motorhome scope of supply.

2.3.3 Conduct in event of fire



- Evacuate the vehicle occupants.
- Switch off the electric power supply and disconnect from the mains.
- Close the main shut-off valve on the gas bottle.
- Sound alarm and call the fire brigade.
- If there is no risk, fight the fire.



- Inform about the location and the operation of the emergency exits.
- Keep escape routes free.
- Observe the fire extinguisher operation for use.

2.4 Traffic safety



- Before starting to travel, check the function of the indicator and lighting system, the steering and the brakes.
- After a longer standing period (approx. 10 months), have the brake system and the gas system checked by an authorised specialist workshop.
- Before commencing your trip, open and secure the roller blinds on the windscreen as well as the driver and passenger window.
- When travelling, persons must only remain on the seats. The permissible number of seats can be obtained in the vehicle documents. Before driving away, apply your seat belt and keep it on when driving.
- Always secure children using the child safety equipment that are prescribed for the respective body size and weight of the child.
- Position child seats only on seats with three-point belts mounted ex-factory.
- The basic vehicle is a commercial vehicle (small HGV). Adapt your driving accordingly. With underpasses, tunnels or similar, observe the overall height of the Malibu box-type van (see all technical data in the vehicle documents).
- In winter, snow and ice must be removed from the roof before driving.

2.4.1 Safety instructions, swivel seats



- Turn all swivel seats in the direction of travel and lock in place. These must remain locked when driving, turning them is forbidden.

2.4.2 Safety instructions, child seats



Risk of injury with resulting in death!

If a baby carrier is placed on the passenger seat facing away from the direction of travel with the airbag active, the child may suffer fatal injuries regardless of the severity of the impact.

→ Always transport small children in their own child seat on the second row of seats!

If it is necessary to transport the small child in a baby carrier on the passenger seat:

- push the passenger seat back as far as it will go in order to avoid the baby carrier from making contact with the dashboard!
- deactivate the front airbag and sidebag on the passenger side via the setup menu!
- check that the airbags are deactivated on the illuminated LED of the button on the dashboard!



→ Further information on the use of child seats can be obtained in chapter "4.6 Child seats" on page 27.

2.5 Trailer operation



- Caution should be exercised when hitching and removing a trailer.
- When manoeuvring for hitching and removing, no persons must be between the Malibu box-type van and the trailer.
- During the manoeuvring, have the path of travel on the side behind the trailer secured by a second person who instructs the driver.

2.6 Gas system



- In event of defects on the gas system (smell of gas, higher gas consumption), there is a risk of explosion! Close the main shut-off valve on the gas bottle immediately. Open the windows and doors, and ventilate. Do not smoke, do not ignite open flames and do not actuate any electric switches (starter, light switch, etc.). Have defects repaired by an authorised specialist workshop.
- Before starting to drive, close the gas shut-off valve and the main shut-off valve. Exception: With a mounted gas controller with crash sensor, the gas shut-off valve "Heater" and the main shut-off valve may be left open if the living area heater has to be operated when travelling.
- When filling the the fuel tank, on ferries and in a garage, no fire points (gas cooker, heater, boiler, fridge, etc.) may be operated. Risk of explosion!
- Have the gas system repaired or modified only by an authorised specialist workshop.
- Before putting into operation, or at least every 2 years, have the gas system checked by an authorised specialist workshop. This also applies to vehicles that are not registered for road use. If modifications are made to the gas system, have the gas system checked by an authorised specialist workshop immediately.



- Before putting a fire point into operation (gas cooker), open a roof hood.
- Do not use the gas cooker for heating purposes.
- The exhaust gas pipe must be connected tight and fixed to the heater and chimney. The exhaust gas pipe must not show any damage.
- Exhaust gases must be able to escape to outdoors without being obstructed, and fresh air must be able to enter without being obstructed. For this reason, no heaps of snow or skirts may rest against the vehicle. Keep the intake openings clear and clean.
- When the Malibu box-type van or the gas device are not used, close the main shut-off valve on the gas bottle.
- If several gas devices are at hand, a gas shut-off valve is required for each gas device. If individual devices are not used, close the respective gas shut-off valve.
- Ignition safety mechanism must close within one minute after the gas flame goes out. A clicking sound must be heard in the process. Check the function every now and then.
- Only use special gas pressure regulators with safety valve for use in vehicles. Other gas pressure regulators are not permitted and do not satisfy the high demands.
- Use on 11 kg or 5 kg gas bottles. Camping gas bottles with check valve installed (blue bottle with max. 2.5 kg or 3 kg volume) may be used with a safety valve in exceptional cases.
- Position the gas bottle vertically in the gas compartment and lash tight so that it cannot turn.
- Check the gas hose at the gas bottle connection for tightness at regular intervals. The gas hose must not have any cracks or be porous. Where necessary, have the gas hose replaced by an authorised specialist workshop.
- Due to its function and design, the gas compartment is a room that opens to the outside. In order to be able to direct escaping gas to the outside, never cover or block the forced ventilation installed.
- Close the gas compartment door and check the seals at regular intervals.
- Do not use the gas compartment as storage compartment.
- The main shut-off valve on the gas bottle must be accessible.
- Lock the gas compartment against unauthorised access.
- Gas bottles must only be transported in the gas compartment.



- Propane gas can be gasified down to -42°C, butane gas on the other hand, only up to 0°C. Gas pressure is no longer present below these temperatures. Butane gas is not suitable for use in winter.

2.7 Electrical system



- Have work on the electrical system only carried out by specialist personnel.
- Before having work carried out on the electrical system, switch off all devices and lights, disconnect the battery and isolate the 230 V power supply from the mains.
- Use only original fuses with the specified ratings.
- Defective fuses should only be replaced when the cause of the error is known and has been eliminated.
- Never by-pass or repair fuses.



- In order to protect the electrical system, a 230 V overvoltage protection can be installed by authorised specialist personnel.
(Protection against overvoltage).

2.8 Water system



- If the Malibu box-type van is not heated when there is a risk of frost, the water system (hoses, containers, etc.) must be emptied otherwise insufficient protection is provided against damage by frost.



- Standing water in the water tank or in the water lines will be unusable after a relatively short period. For this purpose, before putting the Malibu box-type van into operation each time, rinse through the water taps and the water tank thoroughly using several litres of water.
Open all water taps for this purpose.

Chapter Overview

In this chapter, you will find out important information as to what you have to observe before starting to drive, and which activities you have to carry out before driving.

The information affects, in detail:

- the key
- the registration
- the payload and their calculation
- the correct loading of the Malibu box-type van
- Trailer operation
- moving the entrance step in and out
- the information concerning the windows, roof hoods, hatches and doors
- the use of snow chains
- road safety

At the end of the chapter, you will find a check list where the most important items are summarised again.

3 Before starting to travel



→ For emergency cases, keep the emergency numbers of the vehicle manufacturer and appliance device manufacturers at hand (see chapter “12.8 Guarantee responsibilities, service contacts” on page 109).

3.1 Key

You are provided with the following keys for the Malibu box-type van:

two keys for

- the ignition lock
- for the Thetford hatches and the water filler neck



→ Please note the key number for emergency cases and for replacing it. Your key number is not registered in the vehicle documents for security reasons.

3.2 Approval documents

Your Malibu box-type van is a vehicle that is subject to registration. In order to register the vehicle in Germany, you need the following documents:

- personal ID card / passport
- certificate of registration part II
- insurance ID card
- if necessary, certificate of registration part I
- if necessary, certificate of de-registration
- if necessary, certificate for the last MOT (German main inspection and emission test)
- if necessary, verification of the EC type approval
- if necessary, the former number plate number (Germany)
- in case you have authorised somebody with the registration: do not forget the authorisation to register!



→ Please note that when travelling through several countries, that despite having a EU number plate, a separate nationality identification sign is required.

3.3 Payload



→ Payloads that are too heavy and an incorrect inflation pressure may lead to the tyre bursting. You may lose control of your Malibu box-type van.



- The technical permissible total mass (total permissible weight) specified in the vehicle documents must not be exceeded by the payload.
- Accessories installed, special equipment, the full water tank and the gas bottles being transported reduce the payload (observe the weight details on the price lists!).
- Before starting to drive, drain the water tank to 45% in order to reduce the total weight of the Malibu box-type van. The fill level can be read from the Control Panel.
- The axle loads specified in the vehicle documents must be observed.



- Only the technically permissible total mass is specified in the vehicle documents, and not the dead weight.
- For your own safety, Malibu recommends that you weight the loaded Malibu box-type van at a public weighing centre before starting your trip.

3.3.1 Calculating the payload



→ The technically permissible total mass in the loaded state of this Malibu box-type van must never be exceeded under any circumstances.

The payload is the weight difference between:

- the technically permissible total mass when in a loaded state and
- the mass of the vehicle in running order

Technically permissible total mass when in a loaded state

The technically permissible total mass when in a loaded state complies with the construction-related vehicle features and the load-bearing capacity of the tyres.



→ The technically permissible total mass in the loaded state (permissible total mass) is specified by the manufacturer in the vehicle documents under figure 15.

→ The calculation of the payload is partially based on generalised weights.

Weight in running order

The mass in running order is put together from:

- dead weight (mass of the empty vehicle) with the standard equipment installed ex-factory
- weight of the driver (75 kg)
- basic equipment

In order to obtain exact weight information, check the weight on a vehicle weighbridge.

The following belong to the dead weight:

- standard equipment
- the lubricants filled, such as oils and cooling fluids
- the on-board tool
- the spare wheel

The weight for the driver is always calculated as 75 kg independent of the actual weight.

The basic equipment comprises all equipment objects and fluids that are necessary for the safe and correct use of the vehicles.

These include:

- the filled aluminium gas bottle
- a filled toilet flushing system
- the electrical connecting cable
- the installation kit for an additional battery, if an additional battery is intended due to its construction
- an empty waste-water and faeces tank
- 120 litres fresh water
- fuel tank filled to 90 %



→ The mass in a running state is specified by the manufacturer in the vehicle documents in definition field "G".

Payload

The payload is put together from:

- the conventional loading
- Additional equipment
- personal equipment

Conventional loading

With the calculation of the conventional loading, a weight of 75 kg is considered for each seat intended by the manufacturer independent of the actual weight of the passenger.

The drivers place is already included in the weight in running order and must not be included.



→ The number of seats is specified by the manufacturer in the vehicle documents in definition field "S.1".

Additional equipment

Accessories and special equipment belong to the additional equipment.

Examples for additional equipment are:

- trailer coupling
- roof rail
- awning
- bicycle and motorbike holder
- satellite system
- microwave oven



→ The weights of the different special equipment can be obtained from the manufacturer, or from your Malibu trade partner.

Personal equipment

The personal equipment includes all objects carried along in the Malibu box-type van, that are not included in the list above.

These are, for example:

- Provisions
- Crockery
- Television
- Radio
- Clothing
- Bed clothes
- Electronic block
- Toys
- Books
- Toilet articles

The following are also regarded as personal equipment, irrespective of where they are stored:

- Animals
- Bicycles
- Boats
- Surfboards
- Sport equipment

For the personal equipment, at least one weight is to be assumed that can be determined using the following formula:

Minimum weight M (kg) = $10 \times N + 10 \times L$

N = max. number of persons including the driver according to manufacturer specifications

L = total length of the Malibu box-type van in metres

Example for achieving the payload

These values are "approximate details" and depend on the respective model.

Description	Load (kg)
Technically permissible gross weight	3,500
Mass in running order including basic equipment in accordance with RL 92/21 EEC (incl. driver)	- 3020
Maximum payload	= 480
Payload calculated from the passengers (75 kg / person) 3 x 75 kg	225
Personal equipment, comprising	
10 kg / additional person	+ 30
Plus 10 kg/m body length	+ 65
Additional customer-related special equipment	+ 35
Sum of the additional load	= 355
Additional load	125
With persons	40

Due to the calculation 75kg/person plus 10 kg for personal equipment = 85 kg, results in the number of further possible passengers (condition: respectively designated further seats are available).



- These tables are only as an orientation and loading values used an example.
- The mass in running order including the basic equipment can be obtained from the vehicle documents.

3.3.2 Loading the Malibu box-type van correctly



- Distribute the payload equally on the left and right side of the vehicle.
- Distribute the payload equally on both axles in accordance with the axle loads specified in the vehicle documents. Also observe the permissible load-bearing capacity of the tyres.
- With heavier payload behind the rear axle (e.g., motorbike on the rear carrier) or maximum loading of the rear storage compartment, in particular with a long rear overhang, observe the leverage effect ($\frac{V}{R} \cdot \frac{A}{R}$). Relieving the front axle has a negative influence to the driving characteristics, in particular with front-wheel drive vehicles.
- Heavy objects (tent rods, cans and similar articles) must be secured against slipping:
 - in lower lying storage compartments whose doors do not open in the direction of travel.
 - on the floors
 - in the double floors
- Only load bicycles on the bicycle carrier.
- For the safety of the vehicle loaded (with persons), weigh the vehicle before starting your trip.



- Apply a note with the overall height clearly visible in the driver's cabin. You do not have to do any more calculating at bridges and underpasses then.

The storage possibilities in the Malibu box-type van are more or less strongly influenced by the floor plan. Storage compartments with high volumes (rear storage compartment in particular) tempt you to carry heavy holiday utensils. As a result, the rear axle load / front axle load can reach its limit at an early stage.

The overloading of the Malibu box-type van - even only on one axle - should not be underestimated. Decisive factors for the correct loading is therefore not only the actual loading weight, but also in which distance the load is positioned from the axles.

To determine the correct distribution of the load, you will need a scale, a tape measure, a calculator and a little time.

The calculation of the load weight on the front axle or the rear axle can be calculated using a simple rule of three:

Decisive is the respective distance "A" (in cm) from the front axle to each individual payload weight "G" (in kg). Moreover, the wheelbase of the vehicle "R" (in cm) is also included in the calculation. Front axle distance (A) multiplied by weight (G) divided by the wheelbase (R) then specifies the load that the respective weight presses against the rear axle (!).

Then the payload weight is deducted from the rear axle loading calculated. If the difference results in a positive value, this means that the front axle is relieved by this amount. If the result is a negative value then this means that the front axle is loaded.

Example calculation

Distance to the front axle	A	452 (cm)
Weight in the rear storage compartment	G	x 100 (kg)
Wheelbase of the vehicle	R	÷ 325 (cm)
Load on the rear axle		139 (kg)
Weight in the rear storage compartment		- 100 (kg)
Relief on the front axle		39 (kg)

The correct loading can be determined using the calculation of the respective value for all storage compartments.



→ These tables are only as an orientation and loading values used an example.

3.3.3 Shelves and drawers



- When loading the shelves, observe the permissible axle load and the technically permissible total mass.
- Distribute the payload equally.
- The maximum permissible load is:
 - Kitchen drawers 20 kg.
 - Wall cupboard 3 kg per compartment.
 - Other compartments 20 kg.

3.3.4 Trailer operation



- When manoeuvring for hitching and removing, no persons must be between the Malibu box-type van and the trailer.
- During the manoeuvring, have the path of travel on the side behind the trailer secured by a second person who instructs the driver.



- Trailers with overrun brakes: do not hitch or de-hitch trailers with applied brakes.
- Trailer coupling with removable ball neck: if the ball neck is mounted incorrectly, there is a risk of the trailer tearing away. Observe the operating instructions of the trailer coupling manufacturer.
- Observe the permissible coupling load and rear axle load of the Malibu box-type van. The coupling load and rear axle load must not be exceeded. The values of the coupling load and the rear axle load can be obtained in the vehicle documents of the Malibu box-type van and the documents of the trailer coupling.

3.4 Electrically operated entrance step



- Before driving off each time and after short breaks, make sure that the entrance step has been fully retracted.
- Do not stand in the immediate movement area of the entrance step when it is being extracted or retracted.



- Do not load the entrance step when extracting or retracting.



- The living area battery must be connected and ready for operation for operating the entrance step.
- The switch for operating the entrance step is located in the entrance area.
- An acoustic signal sounds when the entrance step has not been retracted and engaged correctly.



Fig. 1 Single step entrance step

Move the entrance step out:

- press rocker switch (Fig. 1, Pos. 2), the entrance step extracts completely.

Move the entrance step in:

- press rocker switch (Fig. 1, Pos. 1), the entrance step retracts completely.

3.5 Windows/roof hoods/hatches/doors



- Before starting to travel, close and secure all windows, roof hoods, hatches and doors in all cases.
- Hinged windows must not be open when driving.
- The respective operating instructions must be observed.
- During operation of the SAT system, all roof hoods in the swivel range may not be opened.

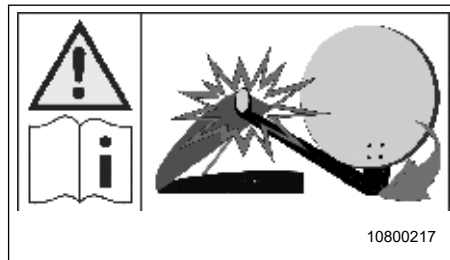


Fig. 2 SAT system safety information

3.6 Snow chains

The use of snow chains is subject to the valid guidelines in the individual countries. They must only be mounted on the drive wheels.





- Tyres, suspension and steering of the Malibu box-type van are exposed to additional loading when snow chains are mounted. In order to avoid damage being caused to your Malibu box-type van, drive slowly with mounted snow chains and only on roads completely covered with snow.
- Observe the mounting guidelines of the snow chain manufacturer.
- It is essential to re-tighten the snow chains again after a short driving range (200 to 500 m).
- Only use fine-linked snow chains for the respective tyre size.



- If you have any questions, please refer to your vehicle customer services partner.

3.7 Traffic safety

Go through the check list before driving.

	Tests	Checked
Basic vehicle	Check the inflation pressure and tyre condition  A tyre with inflation pressure that is too low may lead to the vehicle tyre bursting with fully loaded Malibu box-type van. You may lose control of the vehicle. At regular intervals before commencing your trip or at intervals of two weeks, check the inflation pressure of the Malibu box-type van tyres.	
	Check the oil level, gearbox and power steering	
	Check the vehicle lighting, the brake lights and the reversing lights	
	Check coolant and water levels for windscreen wipers	
	Checking the brakes:	
	<ul style="list-style-type: none"> • brakes operational • brakes react equally • Malibu box-type van remains in track when braking 	
Main cabin	Exterior connections disconnected	
	Roof free of ice and snow (in winter)	
	Windows and roof-mounted fan closed and locked	
	Entrance step retracted	
	Upper shelf cleared away	
	Loose parts stowed away or secured	
	All drawers and hatches closed	
	Living area and sliding doors closed and secured	
	Shower cabin door closed and secured	
	Fridge door secured	
	Fridge power supply switched	
	Locking mechanism of the swivel seats engaged	
Battery	 Check the battery voltage of the starter and living area battery. If a low battery voltage is indicated on the Control Panel, the respective battery must be charged. Start your trip with a fully charged starter and living area battery.	
Gas system	Gas bottles lashed tight in the gas compartment so that they cannot turn	
	Main shut-off valve on the gas bottle is closed	

Tab. 1 Road safety check list

Chapter Overview

In this chapter, you will find information on driving your Malibu box-type van.

The information affects, in detail:

- the brakes
- the seat belts
- the seats
- the seating arrangement
- the child seats
- the folding blinds

4 While driving

4.1 Driving with the Malibu box-type van



- Before driving off each time and after short breaks, make sure that the entrance step has been fully retracted.
- The basic vehicle is a commercial vehicle (small HGV). Adapt your driving accordingly. With underpasses, tunnels or similar, observe the overall height of the Malibu box-type van (see all technical data in the vehicle documents).
- When travelling, persons must only remain on the seats. The permissible number of seats can be obtained in the vehicle documents. Before driving away, apply your seat belt and keep it on when driving.

The driver is responsible that the following points are observed:

- persons travelling must remain seated on the intended places.
- the compulsory wearing of seat belts must be observed.
- the door lock must not be opened.
- the safety instructions listed in chapter 2 must be observed.

Avoid sudden jerky braking actions. Drive slowly on roads with poor surface quality. The driver and all passengers must always wear their seat belts when travelling. Never take off your seat belt when driving.



- For visual upgrading and design customisation of the Fiat dashboard, we use our own ventilation grille variants in silver metallic colour with branding. In certain situations, a small amount of ventilation grille reflection may occur on the windscreen, depending on the way the light falls. A similar kind of reflection occurs in cars. It is not a reason for complaint.

4.2 Brakes



→ Have defects on the brake system repaired by an authorised specialist workshop immediately.

When starting your journey each time, carry out a brake test:

- do the brakes work?
- do the brakes react equally?
- does the Malibu box-type van remain in the lane when braking?

4.3 Seat belts

The living area of the Malibu box-type van is equipped with automatic three-point seat belts.



- Before driving away, apply your seat belt and keep it on when driving.
- Do not damage or trap the belt straps.
- Have damaged seat belts replaced by a specialist workshop.
- Do not modify the belt mounting, the automatic rewinder and the belt buckles.
- Check the screw fitting of the seat belts for tight fit every now and then.
- Each seat belt should only be used for one adult person.
- Do not belt objects together with persons.
- Seat belts are not appropriate for persons with a body height below 150 cm. In this case, use additional restraint systems. Take note of the test certificate.
- Position child seats only on seats with three-point belts mounted ex-factory.

Wearing your seat belt correctly

- Do not twist the belt strap. The belt strap must rest smoothly against the persons body.
- Assume the correct sitting posture for setting the seat belt.

Wearing your seat belt correctly for pregnant persons



Risk of injury!

If the seat belt is guided over the persons stomach during a pregnancy, this can lead to injury to the mother and unborn child in event of an emergency braking action or collision.

→ For pregnant women, the seat belt should be positioned very low so that it runs over the pelvis and under the stomach!

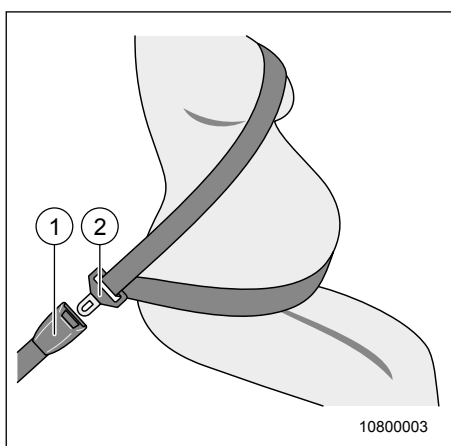


Fig. 3 Putting on the seat belt

Putting on the seat belt:

1. Pull the seat belt on the belt tongue (Fig. 3, Pos. 2) out of the roller unit across your shoulder.
2. Guide the seat belt diagonally over your upper body.
3. Guide the lower belt part over your hips (**not** over the stomach).
4. Insert the belt tongue (Fig. 3, Pos. 2) into the clip (Fig. 3, Pos. 1) until you hear it clicking.

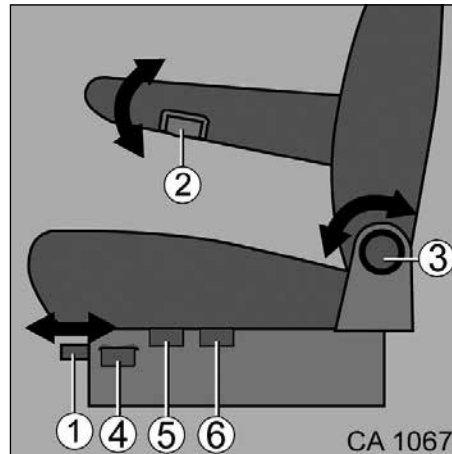
4.4 Seats

4.4.1 Driver's seat and passenger seat



→ Turn all swivel seats in the direction of travel and lock in place. These must remain locked when driving, turning them is forbidden.

Adjusting the seat



- 1 Seat longitudinal adjustment
- 2 Armrest adjustment
- 3 Backrest adjustment
- 4 Swivelling the seat
- 5 Height adjustment, front
- 6 Height adjustment, back

Fig. 4 Adjusting the seat

Move the driver's seat and passenger seat into the driving position:

1. Fold up both armrests.
2. Push the driver's seat / passenger seat to the back or in the middle position.
3. Press the lever (Fig. 4, Pos. 4) upwards.
4. Turn the seat in the direction of travel and lock in place.

Setting the armrest:

The height of the armrest can be adjusted infinitely.

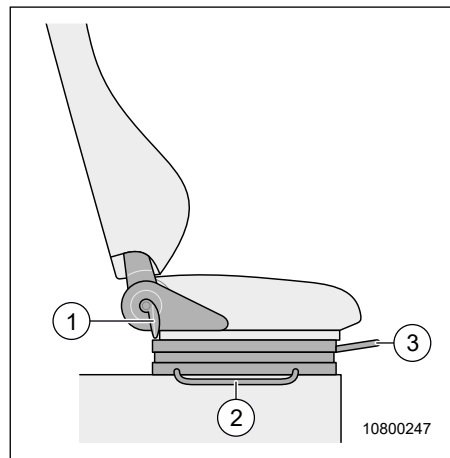
1. Turn the knurled wheel (Fig. 4, Pos. 2) counter-clockwise. The locking mechanism of the armrest released doing this.
2. Move the armrest into the desired position.
3. Turn the knurled wheel clockwise to the stop.



→ Further details for operating / adjusting the driver and passenger seats can be found in the instructions of the vehicle manufacturer in this vehicle.

4.4.2 Rear single seats

Depending on the vehicle, two single seats (special equipment) are installed instead of the seat bench.



- 1** Backrest adjustment
- 2** Lateral seat adjustment (only with outer seat)
- 3** Seat longitudinal adjustment

Fig. 5 Adjustment of individual seats

Backrest adjustment

1. Sit on the seat.
2. Pull and hold the release lever on the backrest (Fig. 5, Pos. 1) .
3. Push the backrest to the desired position using your back.
4. Let go of the release lever (Fig. 5, Pos. 1).

Seat longitudinal adjustment:

1. Pull release lever (Fig. 5, Pos. 3) upwards and hold.
2. Move the seat into the desired position.
3. Let go of the release lever (Fig. 5, Pos. 3).

Lateral seat adjustment (only with outer seat):

1. Pull side release lever (Fig. 5, Pos. 2) upwards and hold.
2. Move the seat sideways into the desired position.
3. Let go of the release lever (Fig. 5, Pos. 2).

4.5 Seating arrangement

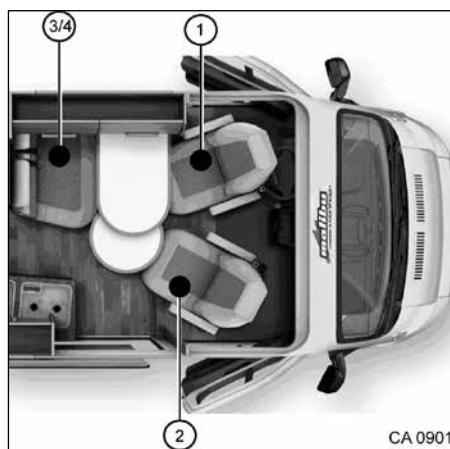


- When travelling, persons must only remain on the prescribed seats. The permissible number of seats can be obtained in the vehicle documents (figure 12).
- It is compulsory to wear a seat belt on all seats that have a seat belt.



- Seats that can be used when travelling are marked with a sticker.

4.5.1 Approved seats



- 1 Driver's seat
- 2 Passenger seat
- 3 Seat
- 4 Seat

Fig. 6 Approved seats



- For equipment with ISOFix system (special equipment), the 3rd and 4th sitting places are carried out as single seats.

4.6 Child seats



Risk of injury with resulting in death!

If a baby carrier is placed on the passenger seat facing away from the direction of travel with active airbags, the child may suffer fatal injuries regardless of the severity of the impact.

→ Always transport small children in their own child seat on the second row of seats!

If it is necessary to transport the small child in a baby carrier on the passenger seat:

- push the passenger seat back as far as it will go in order to avoid the baby carrier from making contact with the dashboard!
- deactivate the front airbag and sidebag on the passenger side via the setup menu!
- check that the airbags are deactivated on the illuminated LED of the button on the dashboard!

4.6.1 Universal child seat

Group	Seats		
	Passenger seat	Back row of seats	
		L	M
0 up to 10 kg	U*	U	U
0+ up to 13 kg	U*	U	U
1 9-18 kg	U	U	U
2 15-25 kg	U	U	U
3 22-36 kg	U	U	U

M: Middle (if necessary, remove the upholstery for the correct installation of the restraint system)

L: Left side (if necessary, remove the upholstery for the correct installation of the restraint system)

U: Suitable for universal restraint systems that can be secured using the seat belt of an adult, and have been approved for this age group.

***:** See danger notes above the table.

Tab. 2 Child seat fastening, universal child seat



→ Further details for using the child seats can be found in the instructions of the vehicle manufacturer in this vehicle.

4.7 ISOFIX child seat















Damage to the child seat!

If a child seat with the Top Tether system is fitted or removed, the seat may be damaged.

- When fitting or removing the child seat with the Top Tether system, observe the instructions of the child seat manufacturer!
- Use the child seat with the Top Tether system only on seats with retaining eyes!



- Approved sitting positions for the ISOFIX child seat are marked by a sewn label.
- You can obtain further information in the separate operating instructions from the seat manufacturer.

Group	Damage to the child seat!	Seats		
		Passenger seat	Back, opposite direction of travel	Back, in the direction of travel
0 up to 10 kg	E			
0+ up to 13 kg	E			
	D			
	C			
1 9-18 kg	A			IUF
	B			
	B1			
	C			
	D			
2 15-25 kg				IUF
3 22-36 kg				IUF

IUF: Also suitable for ISOFIX universal restrain systems facing the front that are approved for use in the specified weight class.



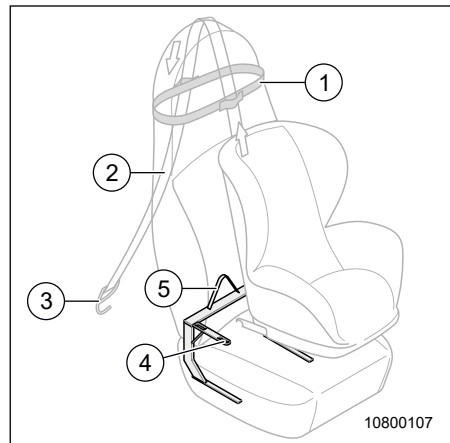
: ISOFIX connecting point that are not suitable for this weight class and / or size class.

Tab. 3 Child seat fastening ISOFIX child seat

4.7.1 Fastening the child seat



→ Before travelling, check that the fastenings are connected correctly to the ISOFIX holders.



- 1 Top Tether fixing strap
- 2 Child seat holding strap
- 3 Strap bracket
- 4 Child seat holding bracket
- 5 Belt fastening holding bracket

Fig. 7 ISOFIX child seat fastening

Fastening the child seat:

1. Hang the child seat into the holding bracket (Fig. 7, Pos. 4).
2. Push the Top Tether fixing strap (Fig. 7, Pos. 1.) over the backrest.
3. Pull the holding strap of the child seat (Fig. 7, Pos. 2.) through the Top Tether fixing strap (Fig. 7, Pos. 1.).
4. Using hooks (Fig. 7, Pos. 3.), hang the holding strap of the child seat in the holding bracket (Fig. 7, Pos. 5.).

4.8 Folding blinds



→ When travelling, the folding blinds for the windscreen, the drivers window and the passenger window must be opened, locked and secured.

Chapter Overview

In this chapter, you will find information on positioning your Malibu box-type van.

The information affects, in detail:

- the hand brake
- the entrance step
- the 230 V connection

5 Positioning the Malibu box-type van



- Position the Malibu box-type van in such a manner that it is as horizontal as possible.
- Secure the vehicle against rolling away.
- To live and sleep as comfortable as possible and to ensure optimal water drainage we recommend parking the Malibu box-type van on a level surface using the levelling wedges that are available from an accessories dealer. A camping spirit level is useful.

5.1 Hand brake

The hand brake is located to the left next to the driver's seat. When parking the vehicle, the hand brake must be pulled on tight.

5.2 Entrance step

Information on safety instructions and operation of the entrance step can be found in chapter "3.4 Electrically operated entrance step" on page 18.

5.3 230 V connection

The Malibu box-type van can be connected to a 230 V power supply.

Information about the electric 230 V connection can be found in chapter "7.2.1 230 V connection" on page 56.

Chapter Overview

In this chapter, you will find information on living in your Malibu box-type van.

The information affects, in detail:

- the ventilation of the Malibu box-type van
- opening and closing the windows
- opening and closing the roof hood
- the outer flaps
- opening and closing the lift-tilt roof
- changing the table area
- use of the beds
- use of the binds
- the sink
- opening and closing of furniture hatches and doors
- the conversion of the step

6 Living

6.1 Ventilation



Ensure for sufficient ventilation. Never cover or block the forced ventilation installed (roof hood with forced ventilation or mushroom shaped ventilator), e.g., with a winter mat. Keep snow and leaves away from forced ventilation systems.

There is a risk of asphyxiation from increased CO₂ content.



- During certain weather conditions, despite sufficient ventilation, condensation may occur on metallic objects (e.g., on the floor chassis screw fittings).
- Additional cold-bridges may also be created at breakthroughs (e.g., edges of roof hoods, sockets, filler necks, hatches, etc.).

Ensure for continuous exchange of air using frequent and targeted ventilation. This is the only way to prevent the accumulation of condensed water under cool weather conditions.

Heating performance, air distribution and ventilation coordinated with each other in the cold seasons ensures for a pleasant living climate.

In order to avoid draughts, close the air outlet nozzles on the dashboard and set the air distribution of the basis vehicle to circulating air. During longer standing periods of the Malibu box-type van, thoroughly ventilate every now and then, in particular during the summer period as the accumulation of heat is possible.

6.2 Window



- The windows are equipped with roller blinds and insect protection blinds. Roller blinds and insect protection blinds return automatically to their initial position using spring force when releasing the locking mechanism. In order not to damage the pulling mechanism, hold the roller blind or insect protection blind tight and slowly guide them back to the initial position.
- Always close the windows before driving.
- Depending on the weather conditions, close the windows far enough so that no moisture can enter.

Depending on the vehicle, one hinged window is mounted on the right side in the area of the sliding door travel path.



Risk of damage!

- In vehicles with the table in the outer area (special equipment), the stop damper on the sliding door is not required. The hinged window may be damaged by opening the door.
 - Close the hinged window before opening the door!

Before opening the sliding door, always check whether the hinged window is closed.

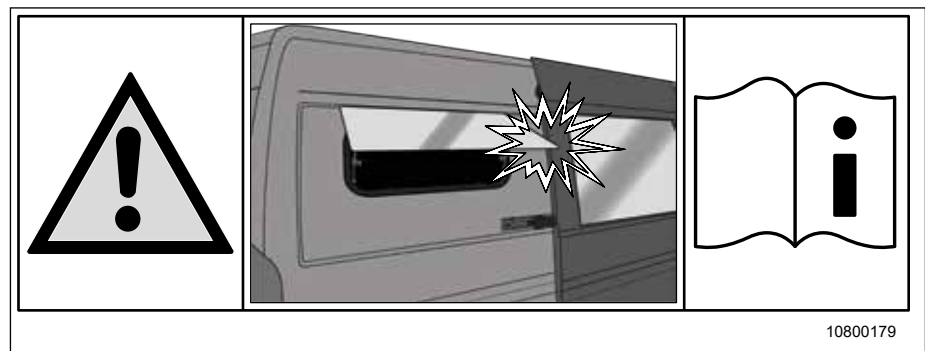


Fig. 8 Hinged window safety label



- Always close the windows when leaving the Malibu box-type van.
- During extreme weather conditions, condensed water may accumulate on the inside of the acrylic double glazing. The window has been designed in such a manner that the condensed water can evaporate again when the outside temperature raises. There is no concern that the acrylic double glazing can be damaged by the condensed water.
- To open and close the hinged window, open or close all locking levers that are mounted on the hinged window.

6.2.1 Hinged window



- When opening the hinged window, take care that no warping takes place. Open and close the hinged window equally.
 - During each operation, press the lock lever of the locking knob (see Fig. 10, Pos. 2).
 - Only open the hinged window in the rear when the doors are closed. When opening the doors (>90°), the windows must be closed.
- Caution: Risk of breakage!** The window knocks against the side wall.

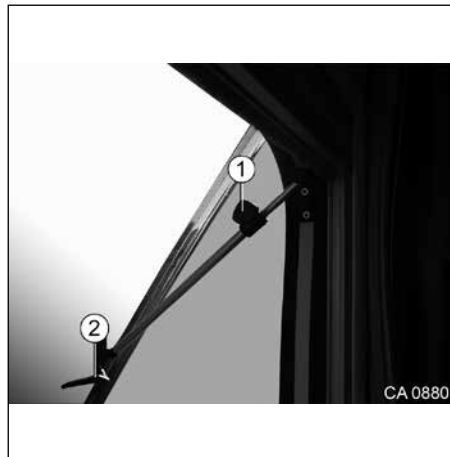


Fig. 9 Hinged window

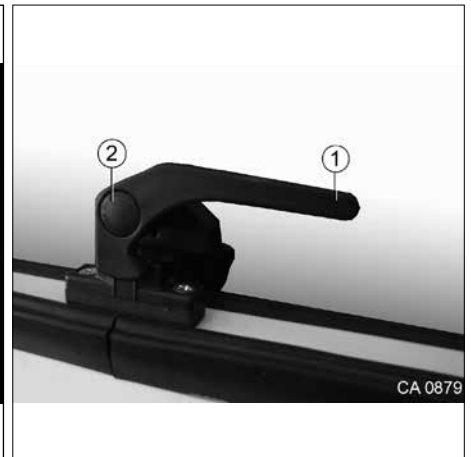


Fig. 10 Hinged window lock lever

Opening the hinged windows

1. Press the locking knob (Fig. 9 and Fig. 10, Pos. 2) and keep it pressed.
2. Move the lock handle (Fig. 10, Pos. 1) to the upright position.
3. Open the knurled screw on the telescopic catch (Fig. 9, Pos. 1).
Open the hinged window to the desired position.
4. Close the knurled screw on the telescopic catch (Fig. 9, Pos. 1).

Closing the hinged window:

1. Support the window with one hand.
2. Open the knurled screw on the telescopic catch.
3. Close the hinged window.
4. Press the locking knob (Fig. 9 and Fig. 10, Pos. 2) and keep it pressed.
5. Move the lock handle (Fig. 10, Pos. 1) to the horizontal position.
6. Close the knurled screw on the telescopic catch.

6.2.2 Roller blind and insect protection blind on the hinged window

The hinged windows in the Malibu box-type vans are equipped with roller blinds and insect protection blinds. Roller blind and insect protection blind are always connected with one-another.
Initial position for both roller blinds is at the top on the window.



Fig. 11 Roller blind and insect protection blind

Closing the roller blind:

- Pull the roller blind from the top to the bottom on the handle (Fig. 11, Pos. 2).

It can be opened to any position in-between.

Opening the roller blind:

- Pull the roller blind from the bottom to the top on the handle (Fig. 11, Pos. 2).

It can be opened to any position in-between.

Closing the insect protection blind:

- Pull the insect protection blind from the top to the bottom on the handle (Fig. 11, Pos. 1).

It can be opened to any position in-between.

Opening the insect protection blind:

- Pull the insect protection blind from the bottom to the top on the handle (Fig. 11, Pos. 1).

It can be opened to any position in-between.

6.3 Roof hoods

Depending on the model, roof hoods are installed in the Malibu box-type van with or without forced ventilation. Roof hoods without sealing rubber are the prescribed forced ventilation.



- The ventilation openings of the forced ventilation must always stay open. Never cover the forced ventilation installed (roof hood with forced ventilation), e.g., with a winter mat. Keep snow and leaves away from forced ventilation systems.



- Do not walk on the acrylic glass of the roof hood.
- The roof hoods are equipped with roller blinds and insect protection blinds. Depending on the model of the roof hood, the roller blinds and the insect protection blind return automatically to their initial position using spring force when releasing the locking mechanism. In order not to damage the pulling mechanism, hold the roller blind or insect protection blind tight and slowly guide them back to the initial position.
- Depending on the weather conditions, close the roof hoods far enough so that no moisture can enter.
- Close the roof hoods when driving.
- To avoid causing damage to the roller blind system, do not close the folding blinds when travelling.
- Always close the roof hoods when leaving the Malibu box-type van.
- Do not operate the roof hood when travelling.
- To avoid the accumulation of heat, close the roller blind max. 2/3 during the day.
- In event of solar radiation, generally use the roller blind and insect protection blind.
- Before opening the roof hood, remove any snow, ice or other soiling.
- Keep the roof hood closed:
 - with strong wind
 - when it is raining or snowing

6.3.1 Mini Heki



→ Check the locking mechanism of the roof hood before travelling.

The roof hood can be pushed up on one side. In doing so, three tilt angles are possible.

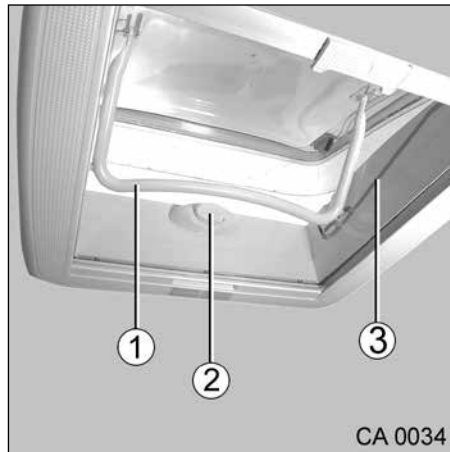


Fig. 12 Mini-Heki

Opening the roof hood:

1. Press the push button (Fig. 12, Pos. 2) and at the same time, pull the bar (Fig. 12, Pos. 1) down past the push button (Fig. 12, Pos. 2) into the guide groove (Fig. 12, Pos. 3).
2. Open the roof hood by pressing the bar in one of the three opening locking mechanisms up.



→ In the middle opening lock, the roof hood can be secured using a bar.

Closing the roof hood:

1. Close the roof hood by pulling down the bar (Fig. 12, Pos. 1).
2. Lock the bar (Fig. 12, Pos. 1) using the push button (Fig. 12, Pos. 2).



→ Observe the safety sticker on the inner frame of the roof hood.

6.3.2 Lift-tilt roof with hand crank



Damage caused by incorrect handling!

- Before starting to drive, close the lift-tilt roof and rollers.
- When travelling, close the insect protection blind in order to avoid noises from the roller guide rods.
- Keep the lift-tilt roof closed
 - with strong wind
 - when it is raining or snowing

This lift-tilt roof can only be opened by using the hand crank.

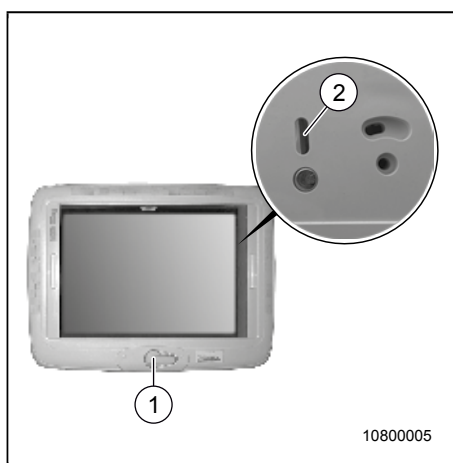


Fig. 13 Lift-tilt roof with hand crank



- Open the lift-tilt roof only far enough until you can feel a resistance. When you feel the resistance, never attempt to open the lift-tilt roof any further.
- Risk of entrapment Position the crank at an angle when turning.

Opening the lift-tilt roof:

1. Fold the hand crank (Fig. 13, Pos. 1) out of the recess.
2. Turn the hand crank (Fig. 13, Pos. 1) in the direction indicated on the hand crank handle thus moving the lift-tilt roof into the desired position.
3. Fold the hand crank (Fig. 13, Pos. 1) back into the recess.

Closing the lift-tilt roof:

1. Fold the hand crank (Fig. 13, Pos. 1) out of the recess.
2. Turn the hand crank (Fig. 13, Pos. 1) in the direction indicated on the hand crank handle until the lift-tilt roof is closed.
3. In order to lock the lift-tilt roof completely, keep turning the hand crank (Fig. 13, Pos. 1) until the red line in the control opening (Fig. 13, Pos. 2) can be seen.
4. By applying slight pressure against the surface of the window, check if the lift-tilt roof has been locked correctly.
5. Fold the hand crank (Fig. 13, Pos. 1) back into the recess.



- Observe the safety sticker on the inner frame of the lift-tilt roof.

6.3.3 Opening / closing the roller blind and insect protection blind

The roof hoods are equipped with a roller blind and insect protection blind. The roller blind is located in the right roller box, the insect protection blind in the left roller box.



- Depending on the model of the roof hood, the roller blinds and the insect protection blind return automatically to their initial position using spring force when releasing the locking mechanism. In order not to damage the pulling mechanism, hold the roller blind or insect protection blind tight and slowly guide them back to the initial position.
- To avoid the accumulation of heat, close the roller blind max. 2/3 during the day.



Fig. 14 Roller blind roof hood (small)

Closing the roller blind:

- Pull the roller blind towards the insect protection blind until both handle strips rest against each other.

Opening the roller blind:

- Slowly guide the roller blind back on the handle (Fig. 14, Pos. 1).

Closing the insect protection blind:

- Pull the insect protection blind towards the roller blind until both handle strips rest against each other.

Opening the insect protection blind:

- Slowly guide the insect protection blind back on the handle (Fig. 14 Pos. 1).

6.4 Exterior hatches



Risk of damage

- The hatch may swivel open when travelling.
 - Before commencing your journey, close all exterior hatches and lock all
- Only open one hatch at a time.
 - Depending on the vehicle type, not all hatches and doors can be opened at the same time.
- Hatches falling shut may lead to damage or injury.
 - After opening the hatch, make sure that it has engaged otherwise damage or injuries may occur.



- Always close the exterior hatches when leaving the motorhome.
- Always turn the locking cylinder back to the initial position.
- The exterior hatches on the motorhome are equipped with standard locking cylinders. Always use the same key for all locks.
- When opening exterior hatches, open all locks mounted on the respective exterior hatch at the same time.

6.4.1 Toilette hatch with two-hand operation

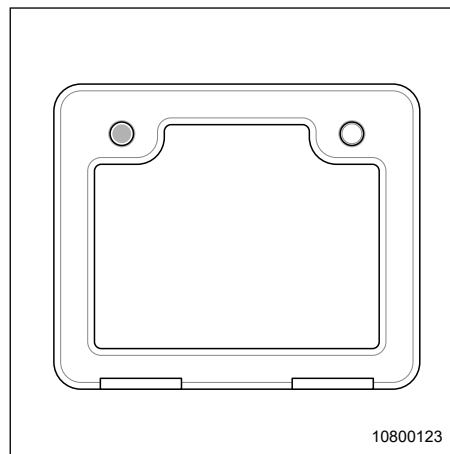


Fig. 15 Toilette hatch with two-hand operation

Opening the toilette hatch:

1. Unlock the hatch lock.
2. Press in the pushbuttons with both hands
3. Open the hatch

Closing the toilette hatch:

1. Close the hatch until the locks engage.
2. Lock the hatch lock.

6.5 Table

6.5.1 Pulling out and folding the table

The table has a plate that can be pulled out.



Fig. 16 Table lever



Fig. 17 Extendible table top

Pulling out the table top:

1. Pull lever (Fig. 16, Pos. 1) downwards.
2. Pull out the table top counter-clockwise.
3. Engage lever (Fig. 16, Pos. 1) in any position.

Pushing the table top in:

1. Pull lever (Fig. 16, Pos. 1) downwards.
2. Move the table top in position under the table.
3. Lever (Fig. 16, Pos. 1) engages.

6.5.2 Removing and sliding the table

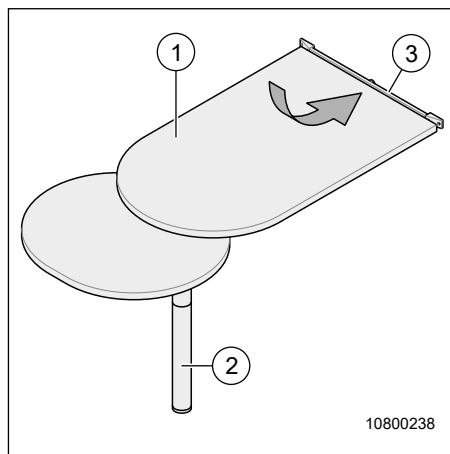


Fig. 18 Table, removable

Removing the table plate:

1. Lift table plate (Fig. 18, Pos. 1).

Caution: The bottom leg part (Fig. 18, Pos.2) is only inserted and may fall out.

2. Remove the bottom leg part (Fig. 18, Pos. 2).
3. Hold the table plate (Fig. 18, Pos. 1) with both hands, and remove from the hanging rail (Fig. 18, Pos. 3)..

Caution: The table plate (Fig. 18, Pos. 1) is only hung on and may fall down if lifted too high.



→ Stow the table plate and leg part and secure against slipping.

Moving the table:

1. Lift the table (Fig. 18, Pos. 1) slightly in order to release the tothing.
Caution: The bottom leg part (Fig. 18, Pos.2) is only inserted and may fall out.
2. When the table (Fig. 18, Pos. 1) is in the raised position, swivel into the desired position.
3. Put the table (Fig. 18, Pos. 1) back down and make sure that the teeth engage.

6.5.3 Using the table as an outer table



- Do not close sliding door with table hooked on.
- Stow the table plate and leg part and secure against slipping.

Hooking on the outer table:

1. Hook table (Fig. 19, Pos. 1) at an angle from above into the guide rail (Fig. 19, Pos. 2) at the kitchen block (Fig. 19, Pos. 3).
Caution: The bottom leg part (Fig. 19, Pos.4) is only inserted and may fall out.
2. Returning to the original state is carried out in reverse order.

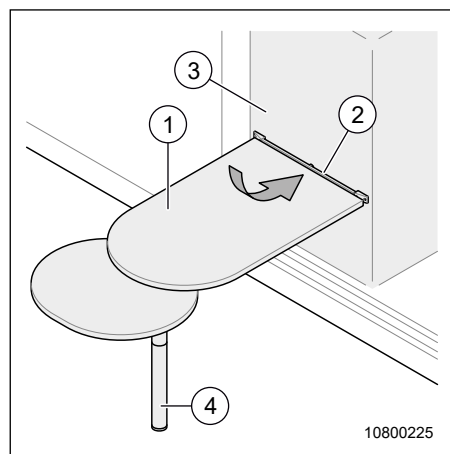


Fig. 19 Hook on outer table

6.5.4 Converting the table to a sleeping berth

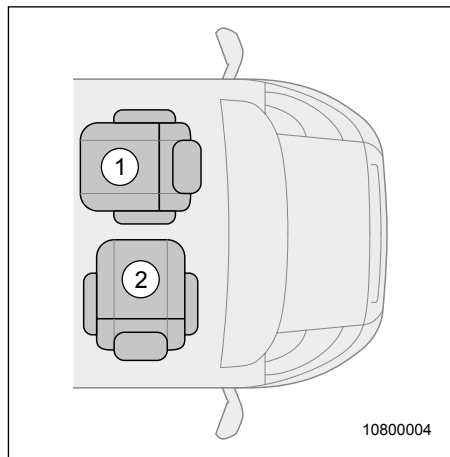


Fig. 20 Vehicle seat position

Converting the table:

1. Turn the left driver cabin seat (Fig. 20, Pos. 1) by 180° to the living area.
2. Turn the right driver cabin seat (Fig. 20, Pos. 2) by 90° to the living area.
3. Swivel in the pull-out table top (Fig. 17)..
4. Lift the table (Fig. 18, Pos. 1) slightly with one hand.

Caution: The bottom leg part (Fig. 18, Pos.2) is only inserted and may fall out.

5. Remove the bottom leg part (Fig. 18, Pos. 2) and stow away safely.
6. Grasp the table (Fig. 18, Pos. 1) with both hands, lift and remove from the top wall rail.
7. Positioned at a slight angle, hand the table (Fig. 18, Pos. 1) into the bottom wall rail and put down again
Take care that the teeth engage.

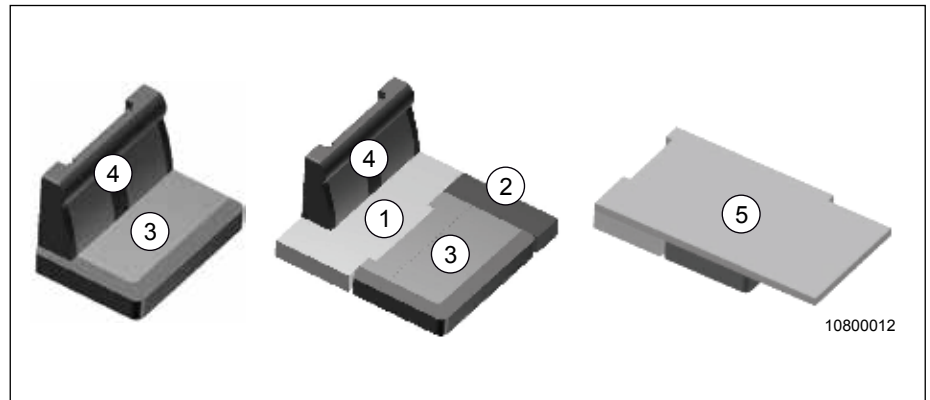


Fig. 21 Converting the seat padding

Seat padding arrangement:

1. Remove the seat padding (Fig. 21, Pos 3) and replace by the larger additional padding (Fig. 21, Pos 1).
2. Insert the seat padding (Fig. 21, Pos 3) in front of the additional padding (Fig. 21, Pos 1).
The recesses of both paddings must correspond.
3. Next to the seat padding (Fig. 21, Pos 3), insert the small additional padding (Fig. 21, Pos 2).
4. As an option, remove the back padding (Fig. 21, Pos. 4) and stow away safely.
5. Place the topper (Fig. 21, Pos 5) over the padding and align.



→ The back padding (Fig. 21, Pos 4) does not have to be removed for the conversion and can remain mounted.

The sleeping area is reduced!

- Before inserting the topper (Fig. 21, Pos 5) the head restraints must be moved up.
- With mounted back padding (Fig. 21, Pos 4), push the topper (Fig. 21, Pos 5) under the back padding.

Returning to the original state is carried out in reverse order.
Stow away the additional padding and topper safely.

6.6 Beds

6.6.1 Converting to transport position



Risk of accident!

→ Ensure for suitable transport securing equipment.
Objects must be secured for transporting.

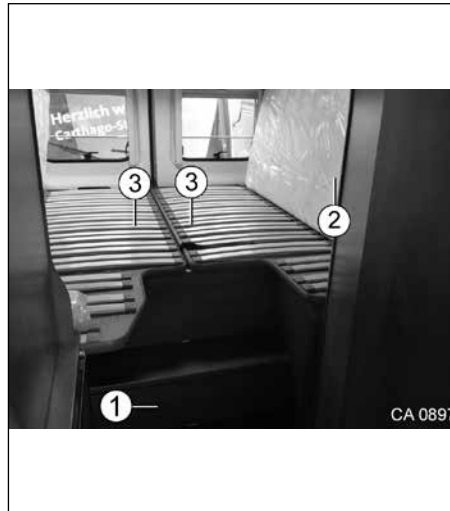


Fig. 22 Rear bed, initial situation



Fig. 23 Transport position

Opening:

1. Remove the bed covers and pillows in the area to be converted.
2. Lift mattresses (Fig. 22 and Fig. 23, Pos. 2), and fold up to the respective sides.

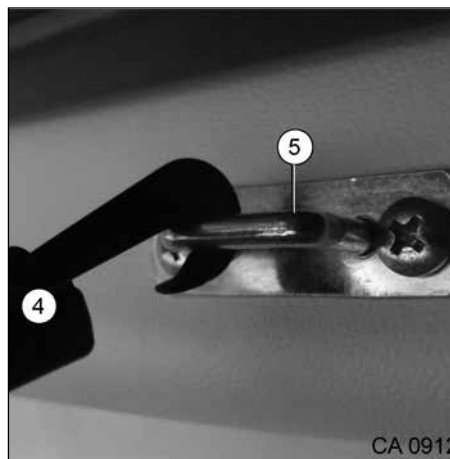


Fig. 24 Hook and retaining ring

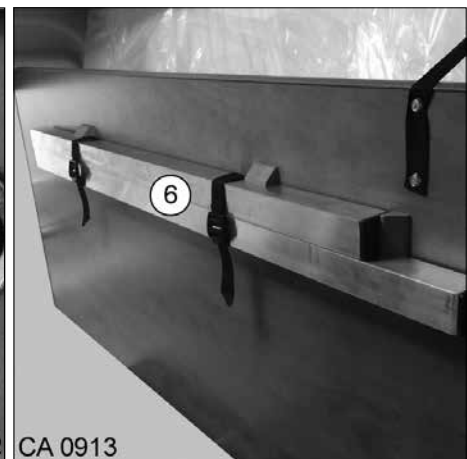


Fig. 25 Rectangular tube holder

3. Lift the partitioned bed frame (Fig. 22 and Fig. 23, Pos. 3), and fold up to the left and right sides. Secure the fastening strap with hook (Fig. 24, Pos. 4) under the overhead cabinet in retaining rings (Fig. 24, Pos. 5).
4. Remove the rectangular tube (Fig. 25, Pos. 6) and secure them to the bottom side of the bed frame.
5. Remove step (Fig. 22, Pos. 1), stow away separate parts.

Returning to the original state is carried out in reverse order.

6.6.2 Bunk bed



→ No persons or obstacles may be in the swivelling area and on the bed section.

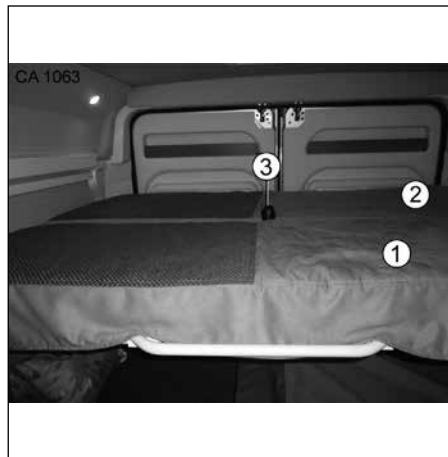


Fig. 26 Fold the front bunk bed upwards



Fig. 27 Fold the front bunk bed downwards

Fold the front bed section (Fig. 26, Pos. 1) upwards:

- Lift the front bed section (Fig. 26, Pos. 1) at handle (Fig. 26, Pos. 3) and push tilted upwards towards the rear door.

Fold the front bed section (Fig. 27, Pos. 2) downwards:

- Carefully pull the front bed section (Fig. 27, Pos. 1) at handle (Fig. 27, Pos. 4) towards the driver's cabin until the bed lies completely flat.

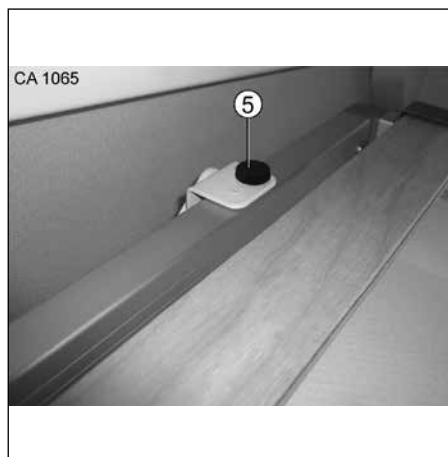


Fig. 28 Removing and reinstalling the front bunk bed



Fig. 29 Removing and reinstalling the rear bunk bed

Removing and reinstalling the front bed section (Fig. 26, Pos. 1):

1. Remove the mattress
2. Fold the front bed section (Fig. 26, Pos. 1) upwards.
3. Unscrew the knurled screws (Fig. 28, Pos. 5) on the right and left sides.
4. Pull the front bed section (Fig. 26, Pos. 1) towards the driver's cabin from the hinge, and remove.

Installation in reverse order.

Removing and reinstalling the rear bed section (Fig. 27, Pos. 2):

1. Remove the front bed section (Fig. 27, Pos. 1).
2. Remove the mattress
3. Unscrew the knurled screws (Fig. 29, Pos. 6) under the slatted frame on the right and left sides.
4. Lift the rear bed section (Fig. 27, Pos. 2) upwards and turn in such a manner that it can be removed through the rear doors.

Installation in reverse order.

6.7 Blackout system


→ When travelling, the folding blinds for the windscreen, the drivers window and the passenger window must be opened, locked and secured.

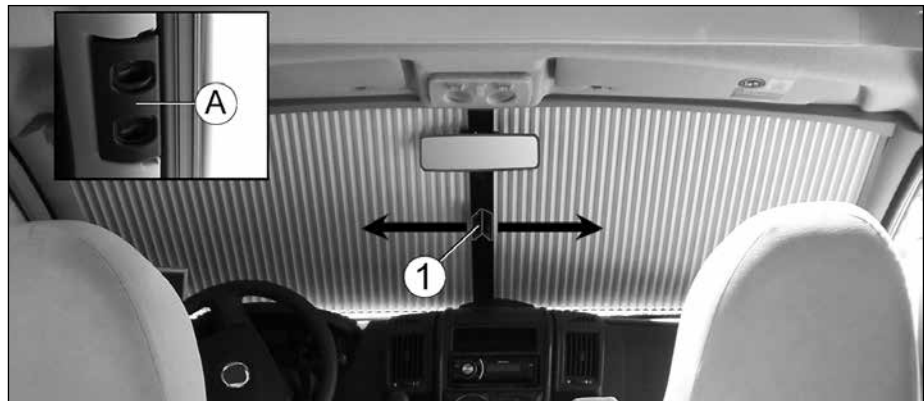
6.7.1 Roller blinds, windscreen, pleated


Fig. 30 Roller blinds, windscreen, pleated

Opening the windscreen roller blinds:

- Guide the roller blind back on the handle (Fig. 30, Pos. 1) in the direction of the arrow (↔) until the handle engages.

Closing the windscreen roller blinds:

1. Reach into the handle recess of the handle (Fig. 30, Pos. A) with two fingers and unlock by pressing the handle (Fig. 30, Pos. 1).
2. Guide the roller blind on the handle (Fig. 30, Pos. 1) in the direction of the arrow (→/←) and close. Couple the magnet strips together.

6.7.2 Roller blinds, side windows, pleated



Fig. 31 Roller blinds, side windows

Closing the side window roller blinds:

1. Reach into the handle recess of the handle (Fig. 30, Pos. A) with two fingers and unlock by pressing the handle (Fig. 31, Pos. 1).
2. Guide the blind on the handle (Fig. 31, Pos. 1) in the direction of the arrow (→) thus closing it.

Opening the side window roller blinds:

- To open, guide the roller on the handle (Fig. 31, Pos. 1) in the direction of the arrow (←) until it engages.

6.7.3 TV holder

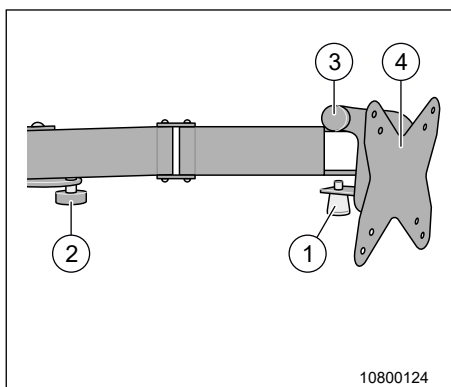


Fig. 32 TV holder

Swivelling out the TV holder:

1. Pull the locking knob (Fig. 32 Pos. 1) downwards and hold in place.
2. Swivel the TV holder to the front horizontally in any position.
3. Loosen the fastening screw (Fig. 32, Pos. 3) and swivel the flat screen upwards or downwards.
4. Using fastening screws (Fig. 32, Pos. 2 and 3), secure the TV holder.

Fold in the TV holder in the reverse order.



→ When travelling, fold in and secure the TV holder.

6.8 Sink

The sink is equipped with matching covers.



→ Before you start travelling, make sure that all covers are stowed away safely. This prevents damage or injuries being caused due to loose covers.

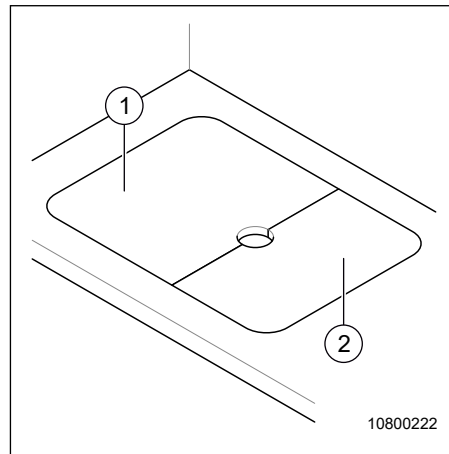


Fig. 33 Sink cover

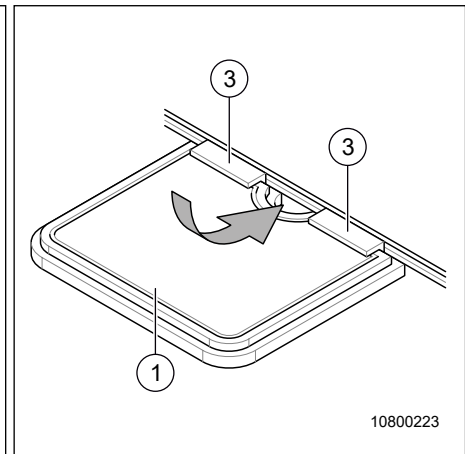


Fig. 34 Work surface

Storing the covers:

- The covers (Fig. 33, Pos. 1, 2 and Fig. 34, Pos. 1) can be stowed away in a drawer under the gas cooker.

Hooking on the additional worktop:

The cover (Fig. 34, Pos. 1) can be used as an additional work surface.

- Insert the cover (Fig. 34, Pos. 1) into the holder (Fig. 34, Pos. 3) equally with the edge at a slight angle from above and push in completely.

6.9 Worktop extension

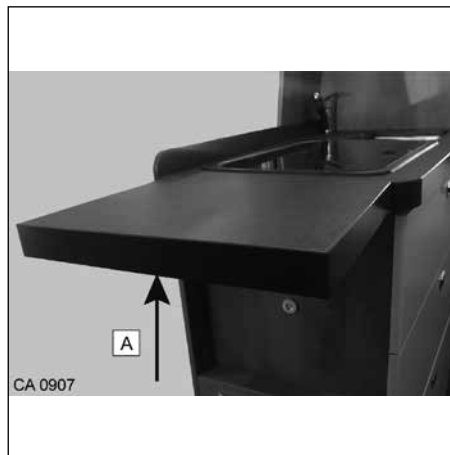


Fig. 35 Worktop extension

Setting up:

- Pivot up the extension of the worktop until it engages.

Folding down:

- Press lever strip (Fig. 35, Pos. A). Fold down the extension.

6.10 Hatches and door locks

Wooden furniture doors, doors and cabinets of the Malibu box-type van are equipped with push-lock locks or handle locks.



→ Before starting to travel, make sure that all hatches and doors are closed tight and secured. This prevents stored items from falling out and damaging door locks.

6.10.1 Push-lock locks

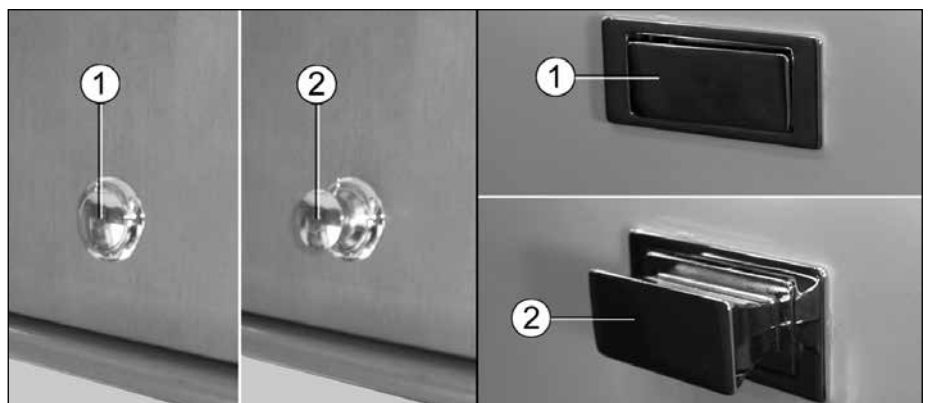


Fig. 36 Push-lock lock closed / opened

Open / close the push-lock lock:

- Pushing on the push-lock locks opens (Fig. 36, Pos. 2) or closes (Fig. 36, Pos. 1) them.

6.10.2 Handle locks



Fig. 37 Handle lock

Open / close the handle lock:

- Press the handle (Fig. 37, Pos. 1) downwards and open or close the furniture doors.

6.10.3 Storage hatch flush catch

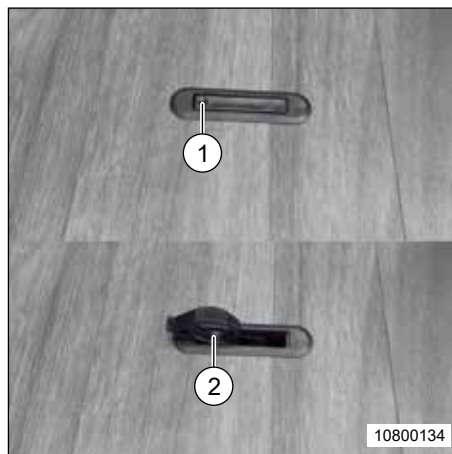


Fig. 38 Storage compartment hatch flush catch

Opening the flush catch:

- Press the flush catch downwards at the marking (Fig. 38, Pos. 1), The hatch handle flips upwards.
- Lift the hatch on the hatch handle (Fig. 38 Pos 2).

Closing the flush catch:

- Close the hatch and pivot the hatch handle (Fig. 38, Pos 2) back in.

6.11 Step, relocating

6.11.1 Movable step Malibu 600



Fig. 39 Movable step Malibu 600

Removing the step:

1. Fold the cover (Fig. 39, Pos. 1) to the rear.
2. Open the Push Lock (Fig. 39, Pos. 2).
3. Pull the divided cover (Fig. 39, Pos. 3) slightly to the front.
4. Push the step to the side until you hear it locking in place.

Assembly is carried out in reverse order.

6.11.2 Fixed step Malibu 640



Fig. 40 Fixed step Malibu 640

Removing the step:

1. Fold up the bed.
2. Lift the step up and pull out of the aluminium rails on the side toward the rear doors.
3. Remove the step.

Assembly is carried out in reverse order.

Chapter Overview

In this chapter, you will find information on the electrical system in your Malibu box-type van.

The information affects, in detail:

- safety
- the 230 V wiring system and its connection
- the 12 V wiring system of the living area battery
- explanations of technical terms for the battery
- the Control Panel
- the electric block
- the fuses
- the light switch / switch

7 Electrical system

7.1 General



- Only allow specialist personnel to work on the electrical system.
- Electrical devices (e.g., mobile telephones or radio transceivers) that are subsequently installed in the Malibu box-type van must, next to the CE mark, also have a so-called EMC test (electromagnetic compatibility) from the device manufacturer.
- Defective fuses should only be replaced when the cause of the error is known and has been eliminated.
- If the vehicle is used regularly, have the electrical system checked and certified by an electrician every year (DIN VDE 0100-721). Regardless of this the system should be checked every 3 years.



- During thunderstorms, your Malibu box-type van is a safe location (Faraday cage) However, as a matter of caution, disconnect the 230 V connection and withdraw the aerial in order to protect the electrical devices.



- In order to protect the electrical system, a 230 V overvoltage protection (protects against overvoltage) can be installed by authorised specialist personnel.

7.2 230 V on-board electrical system

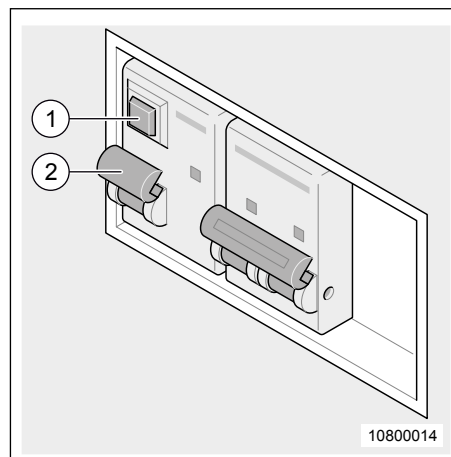


Fig. 41 Circuit breaker

- 1 Test button
- 2 FI circuit breaker



→ Check the correct operation of the FI circuit breaker (Fig. 41, Pos. 2) monthly. For this purpose, press the test button (Fig. 41, Pos. 1). The FI circuit breaker (Fig. 41, Pos. 2) must switch off immediately. Observe additional information on the device!



- Electrical consumers that are connected to the 12 V wiring system of the living area are supplied with voltage from the living area battery.
- When the external 230 V supply is connected, the living area battery is automatically charged via the charge module in the electric block.
- To preserve the living area battery, connect the Malibu box-type van to an external 230 V supply as often as possible.
- Move the switch position of the FI circuit breaker to "1" (top) for the 230 V operation (Fig. 41, Pos. 2).

7.2.1 230 V connection



- The external 230 V supply must be safeguarded via a residual current circuit breaker (FI switch, 30 mA).
- Unwind the cable completely from the cable reel in order to avoid overheating.

The Malibu box-type van can be connected to an external 230 V power supply. The cable must have a maximum length of 25 metres.

Supply line:

- three-wire (3 x 2,5 mm²) flexible rubber sheathed cable
- maximum 25 metres long
- 1 connector with ground contact
- 1 connection coupling with ground contact
(Connector system according to DIN 49462)

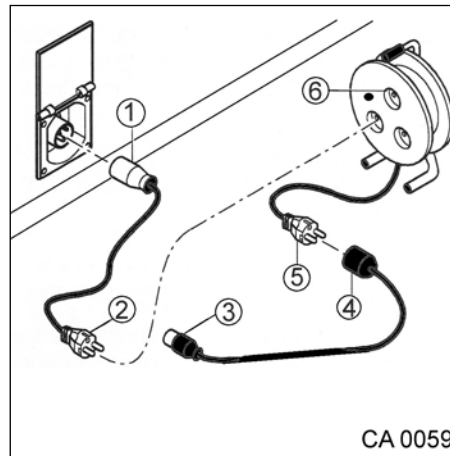


Fig. 42 Cable connection

In order to be equipped for all connecting possibilities, the following combination is recommended:

- adapter cable:
CEE connection coupling (Fig. 42, Pos. 1) with ground contact and connector (Fig. 42, Pos. 2) with ground contact.
- cable reel:
socket (Fig. 42, Pos. 6) with ground contact and connector (Fig. 42, Pos. 5) with ground contact.
- adapter cable:
connection coupling (Fig. 42, Pos. 4) with ground contact and CEE connector (Fig. 42, Pos. 3) with ground contact.



→ If there are 230 V fluorescent lamps in the vehicle, these may "flicker". In such cases, the 230 V plug simply has to be inserted turned around.

7.2.2 Connecting to the external power supply



Damage caused by overheating!

→ Before connecting the vehicle to the external power supply, unwind the cable drum completely.



Before connecting the vehicle system to the external power supply, check whether:

- the power supply of the pitch is suitable for the voltage, frequency and current.
- the cable and lines are suitable for the connection.
- the main circuit breaker of the vehicle is in the "Off" position.

Connecting to the external power supply

1. Check cables, lines, plugs and connections for damage.
2. Open cover of connection on vehicle (if present).
3. Plug in the CEE connection coupling (Fig. 42, Pos. 1).

4. Plug the connection coupling (Fig. 42, Pos. 3) into the power supply of the pitch.
5. Switch on main circuit breaker of vehicle.
6. Check function on control panel (Fig. 44).



→ If the power supply is unstable or not present after connecting, contact the operator of the pitch.

7.2.3 Cutting off the external power supply

Disconnecting the external power supply:

1. Switch off main circuit breaker of vehicle.
2. Unplug cables and lines of external power supply.
3. Unplug cables and lines at vehicle connection.
4. Close cover of vehicle connection (if present).

7.3 12 V on-board electrical system

If the Malibu box-type van is not connected to the 230 V supply voltage or the 230 V supply voltage is switched off, the living area battery supplies the living area with 12 V DC voltage. When the vehicle engine is running, the living area battery and the starter battery are charged by the vehicle alternator. The living area battery only has a limited supply of energy. This is why electric consumers should not be operated without 230 V supply voltage for longer periods.

During heating operation, the circulating air blower is switched on and off by a thermostat controller. As a result, the living area battery is loaded if the 230 V supply voltage is not connected.

7.3.1 Terms

Open-circuit voltage

The open-circuit voltage is the voltage of the battery in idle state, this means that current is not use nor is the battery being charged.

Deep discharge



→ Deep charging damages the batteries.

Deep discharge of the battery is at threat when the battery is completely discharged by consumers switched on and by open-circuit voltage.

Capacity

Capacity designates the amount of electricity the battery can store. The capacity of a battery is specified in Ampere hours (Ah). If the fully charged batter has a capacity of 80 Ah, 90 Ah/100 Ah-20 % = 70 Ah are available. The battery is able to supply a current of 1 A 70 hours long or ~ 10 A for 7 hours. Pre-requisite, the batteries are fully charged.

Example: Spot light 5 W = 0.42 A

External influences such as temperature change the storage capability of the battery.

Continuous current electricity consumers are:

- Electrically operated entrance step
- Heating
- Radio outlet
- Electronic block

7.3.2 Living area battery



- The maintenance instructions and instructions for use of the battery manufacturer must be observed..
- Start the trip only with a fully charged living area battery. For this purpose, charge the battery for at least 20 hours before starting the trip.
- During your trip, use every opportunity to charge the living area battery.
- In order to avoid causing damage to the living area battery, charge the battery at regular intervals, but every four weeks at the latest.
- After returning from your trip, charge the battery via the charge module in the electric block with 230 V connection for at least 20 hours as, in general, the living area battery is also never fully charged during longer mobile use.
The main charge phase of the charger is eight hours.
Hint: remove the 230 V connector of the charger after eight hours and insert it again. The main charge phase can start again.
- Use the existing charge unit to charge the living area battery.
- The living area battery discharges quicker at higher ambient temperatures (above 30°C). Self-discharge rate at +20 °C is approx. 2 % per month, at +40 °C it is 15 to 20 % per month.



- Battery charging at an operating temperature of the battery below 5°C is ruled out.
- In order to guarantee the optimum battery charging, the operating temperature of the living area battery must be heated to 15°C via the on-board heating system.
- Check the terminal clamps on the living area battery for correct seating at regular intervals. If the terminal clamps loosen, the battery is not charged correctly resulting in a high resistance when supplying energy (this leads to, e.g., malfunctions on the inverter).
- In event of prolonged deep charging, the living area battery shall be damaged irreparably.
- In event of overcharging, the living area battery shall be damaged irreparably.



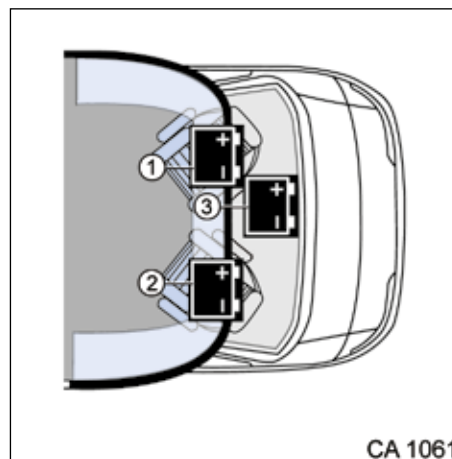
- During longer standing times, switch off the living area battery via the main switch on the Control Panel and charge at regular intervals via the 230 V connection.
- Do not run the vehicle engine with living area battery disconnected. Risk of short-circuit!
- With the 12 V main switch switched off, approx. 20 mA to 65 mA current is withdrawn from the battery capacity by the consumers such as electronics of the charger, electronics of the Control Panel, heater, special devices (e.g., satellite system, etc.) if the living area battery is not disconnected from the 12 V mains.
- When changing the living area battery, use only batteries of the same design. A lead-gel battery must only be replaced with a lead-gel battery.
- The lead-gel battery is maintenance-free. Maintenance-free means:
 - it is not necessary to check the acid level.
 - it is not necessary to top up with distilled water.
- A maintenance-free lead-gel battery also has to be charged at regular intervals.
- In order to avoid the deep charging of the battery, disconnect the living area battery from the current circuit when the Malibu box-type van is standing still for longer periods.

7.3.3

Installation location of the vehicle / living area battery



- Have the starter battery and/or living area battery only replaced by specialist personnel.



- 1 Living area battery
- 2 Second living area battery (special equipment)
- 3 Starter battery

Fig. 43 Installation location of the batteries

7.4

Charging the living area battery and starter battery



- Battery acid in the battery is toxic and corrosive. Avoid all contact with skin or eyes.
- There is a risk of explosion when charging using an external charger. Charge batteries only in well ventilated rooms and at a clear distance from open fire or potential sources of sparks.



- Do not connect the battery cables with reversed terminals.
- Do not run the vehicle engine with starter battery or living area battery disconnected. Risk of short-circuit!
- Before removing the pole terminals, switch off the vehicle engine and switch off the 230 V supply and the 12 V supply. When disconnecting, there is a risk of short-circuit.
- With lead-gel batteries, check if the external charger is approved for lead-gel batteries.
- For the starter battery, also observe the user manual of the basic vehicle.

7.4.1 Charging via 230 V power supply

With 230 V power supply connected, the living area and starter battery are charged via the charge module installed in the Malibu box-type van.

The starter battery is charged with 2 A.

In order to use the full capacity of the charge module, all electric consumers must be switched off during the charging procedure.

7.4.2 Charging via the vehicle engine

When the vehicle engine is running, the living area battery and the starter battery are charged by the vehicle alternator. If the vehicle engine is switched off, the batteries are isolated from each other automatically using a relay. This prevents the starter battery from being discharged by electric consumers in the living area.

The charge state of the living area or starter battery can be read from the Control Panel.



- A 100 percent charge state will not be achieved when charging via the vehicle engine. Charge batteries via the 230 V supply every 4 weeks.
- Check the charge procedure via the Control Panel.

7.4.3 Charging with external charger



- Details and information with regard to charging the starter battery can be found in the instructions of the vehicle manufacturer in this vehicle.

7.5 Control Panel

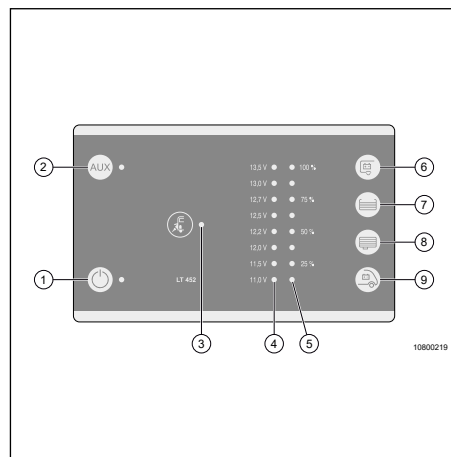


Fig. 44 Control Panel

- 1 Main switch On / Off
- 2 12 volt power supply on/off
- 3 Mains voltage LED indicator
- 4 Battery voltage LED indicator
- 5 Water/waste water tank filling level LED indicator
- 6 Sensor, battery voltage, living area battery
- 7 Sensor, filling level, water tank
- 8 Sensor, filling level, waste water tank
- 9 Sensor, battery voltage, starter battery

7.5.1 Main switch 12 V

The main switch 12 V (Fig. 44, Pos. 1) switches the 12 V supply of the living area on and off.



→ In order to avoid unnecessary discharging of the living area battery, the 12 V main switch should be switched off when leaving the vehicle.

7.5.2 Displaying the water or waste water quantity

The fill level of the water and waste water tanks can be checked by pressing the buttons (Fig. 44, Pos. 7 and 8) on the control panel.



→ In event of incorrect indication of the tank fill level, clean the tank sensors.

7.5.3 Battery alarm and automatic deactivation

The battery monitor switches all 12 V consumers off when the living area battery falls below 10.5 V (measurement in running operation) thus threatening a deep discharge.



→ In event of a battery alarm, switch off the consumers and fully charge the living area battery via the 230 V mains.

→ In event of prolonged deep charging, the living area battery shall be damaged irreparably.



- If the voltage of the main cabin battery falls below 10.5 V, the battery monitoring facility switches off all 12 V consumers.
- When the voltage is higher than 12 V, the consumers switch back on automatically.
- All consumers connected directly to the main cabin battery are not monitored by this controller.

The charge state of the living area battery can be queried on the Control Panel.

Battery voltage (Values during running operation, not for open-circuit voltage)	Battery operation Stationary vehicle no 230 V connection	Driving operation Travelling vehicle no 230 V connection	Mains operation Stationary vehicle, 230 V connection
11 V or less	<ul style="list-style-type: none"> Consumers switched off: Battery empty Deep discharge! Charge battery Consumers switched on: Battery overloaded → Switch off consumers 	<ul style="list-style-type: none"> 12 V wiring system overloaded Deep discharge! → Switch off consumers, charge battery No charge Control of the alternator or the isolating relay defective → Visit a specialist workshop and have repaired 	<ul style="list-style-type: none"> No charge Charge module defective - 230 V fuse not switched on → Visit a specialist workshop and have repaired
11.1 V to 13.2 V	Value during running operation: Normal range	<ul style="list-style-type: none"> If the voltage does not rise above this for several hours: 12 V wiring system overloaded → Switch off consumers Control of the alternator or the isolating relay defective → Visit a specialist workshop and have repaired 	<ul style="list-style-type: none"> Charge module defective - 230 V fuse not switched on → Visit a specialist workshop and have repaired
	Values for open-circuit voltage 12.3 V 12.5 V >12.8 V	Charge state of the battery 50 % 75 % 100%	
13.3 V to 13.7 V	Only occurs briefly after charging in driving mode or 230 V operation	Battery is being charged	
13.8 V to 14.4 V	—	Battery is being charged	
higher than 14.4 V	—	Battery is overloaded <ul style="list-style-type: none"> Controller of the alternator defective → Visit a specialist workshop and have repaired Charge module defective → Visit a specialist workshop and have repaired 	

Tab. 4 Battery voltage

7.6 Electronic block

The electric block takes over the entire distribution and safeguarding of the 12 V current circuit and other control and monitoring functions. It only works in combination with the Control Panel. Electronic block is installed under the drivers seat (Fig. 45, Pos. A). The charger is located in the electronic block.

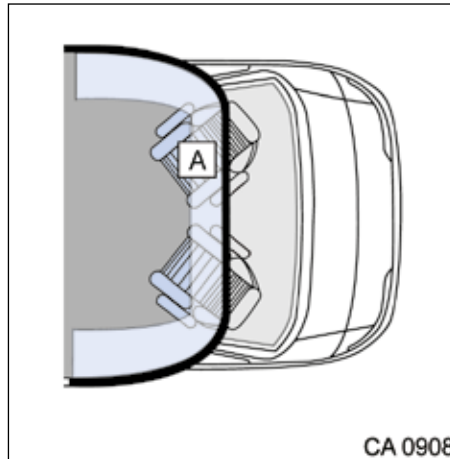


Fig. 45 Electric block position

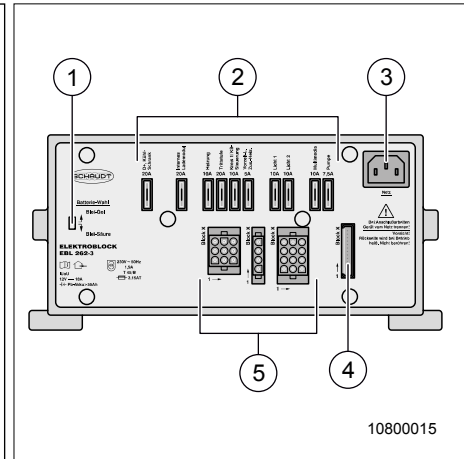


Fig. 46 Electronic block

- 1 Battery selector switch
- 2 Blade fuses
- 3 230 V mains connection
- 4 Connection for the Control Panel
- 5 Connections for the 12 V consumers

The blade fuses (Fig. 46, Pos. 2) safeguard the different current circuits. Where required, check or change the fuses.



→ Details and information about the electric block as well as fuse allocations can be found in the vehicle and equipment manufacturer's manuals.

7.7 Fuses

7.7.1 Fuses on the electric block



- Defective fuses should only be replaced when the cause of the error is known and has been eliminated.
- Never by-pass or repair fuses.



- The compressor fridge is safeguarded via the fuse of the step on the electric block.

The consumers that are connected to the 12 V supply voltage in the living area are safeguarded by their own fuses.

7.7.2 Installation location of the fuses

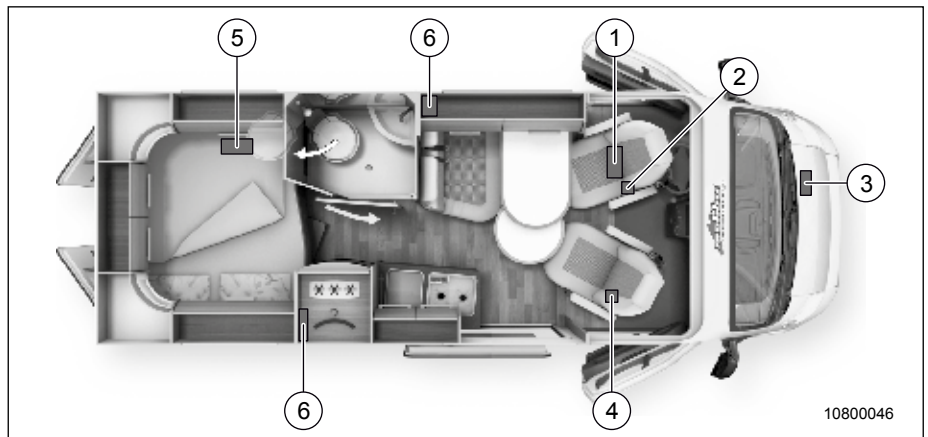


Fig. 47 Fuses

- | | |
|---|--|
| 1 Electronic block | 4 50 A fuse for 2nd living area battery (optional) |
| 2 50 A fuse for the main cabin
2 A fuse for battery monitoring | 5 230 V circuit breaker |
| 3 Fuse, diesel auxiliary heater (optional) | 6 10 A fuse for satellite system (optional) |

7.8 Light switch / switches

The Malibu box-type van is equipped with different lighting elements. These can be switched on and off independent from each other.

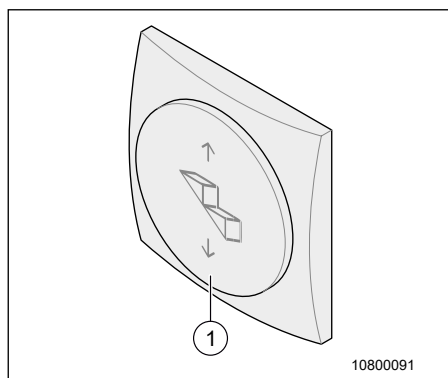
Changing of the lighting elements is described separately “12.3 Main cabin lighting” on page 102.

7.8.1 Switch in the entrance area

The switches for the step and the light are located in the entrance area.

Switch lighting elements on / off:

1. Switch on the Control Panel (see chapter 7.5).
2. In order to switch the desired lighting elements on and off, press the respective light switch.



- 1 Switch for retracting and extracting the step.

Fig. 48 Step tread switch

To retract and extract the step, press the switch upwards or downwards.

7.8.2 Lighting function switch sliding door

The vehicle is equipped with an additional function switch (Fig. 49) for the illumination of the entrance area. The function switch (Fig. 49) is linked to the sliding door.



Fig. 49 Function switch next to the sliding door

The following settings are available:

- I = The lighting in the entrance area switches automatically when opening and closing the sliding door. If the sliding door stays open for a longer period, the lighting goes out after approx. 15 minutes.
→ In order to reactivate the function, close and open the sliding door again.
- = The light is off permanently.
- II = Switch on manually for permanent lighting.

Chapter Overview

In this chapter, you will find information on the gas system of your Malibu box-type van.

The information affects, in detail:

- safety
- the properties of gas
- gas consumption
- changing the gas bottles
- the gas shut-off valves

The operation of the gas operated appliances of the Malibu box-type van is described in chapter 9.

8 Gas system

8.1 Safety



- In event of defects on the gas system (smell of gas, higher gas consumption), there is a risk of explosion! Close the main shut-off valve on the gas bottle immediately. Open windows and the doors. Do not smoke, do not ignite open flames and do not actuate any electric switches (starter, light switch, etc.). Have defects repaired by an authorised specialist workshop.
- Before starting to drive, close the gas shut-off valve and the main shut-off valve. Exception: With a mounted gas controller with crash sensor, the gas shut-off valve "Heater" and the main shut-off valve may be left open if the living area heater has to be operated when travelling.
- When filling the fuel tank, on ferries and in a garage, no fire points (gas cooker, gas heater, boiler, fridge, etc.) may be operated.
- Before putting into operation, or at least every 2 years, have the gas system checked by an authorised specialist workshop. This also applies to vehicles that are not registered for road use. If modifications are made to the gas system, have the gas system checked by an authorised specialist workshop immediately.
- Have the gas system repaired or modified only by an authorised specialist workshop.
- Before putting a fire point into operation (gas cooker), open a roof hood.
- Do not use the gas cooker for heating purposes.
- When the Malibu box-type van or the gas device are not used, close the main shut-off valve on the gas bottle.
- If several gas devices are at hand, a gas shut-off valve is required for each gas device. If individual gas devices are not used, close the respective gas shut-off valve.
- Ignition safety mechanism must close within one minute after the gas flame goes out. A clicking sound must be heard in the process. Check the function every now and then.
- The devices installed have been dimensioned for operation using propane gas, butane gas, or a mixture of both gases. The gas pressure regulator as well as all gas devices installed have been dimensioned for an operating pressure of 30 mbar.



- Check the gas hose at the gas bottle connection for tightness at regular intervals. The gas hose must not have any cracks or be porous. Where necessary, have gas hoses replaced by an authorised specialist workshop.
- Due to its function and design, the gas compartment is a room that opens to the outside. In order to be able to direct escaping gas to the outside, never cover or block the forced ventilation installed.
- Do not use the gas compartment as storage compartment.
- Lock the gas compartment against unauthorised access.
- The main shut-off valve on the gas bottle must be accessible.
- Connect only gas operated devices (e.g., gas grill) that have been dimensioned for a gas pressure of 30 mbar.
- The exhaust gas pipe must be connected tight and fixed to the heater and chimney. The exhaust gas pipe must not show any damage.
- Exhaust gases must be able to escape to outdoors without being obstructed, and fresh air must be able to enter without being obstructed. For this reason, no heaps of snow or skirts may rest against the vehicle. Keep the intake openings clear and clean.
- Close the gas compartment door and check the seals at regular intervals.



- Propane gas can be gasified down to -42 °C, butane gas on the other hand, only up to 0 °C. Gas pressure is no longer present below these temperatures. Butane gas is not suitable for use in winter.
- Only a 5 kg bottle can be transported in any vehicle with the low bed.

8.2 Interesting facts about gas

The properties of gas

Gas is a petroleum product that is officially called "condensed petroleum gas". It mainly comprises the gases propane and butane. Propane has the benefit that it can still be used at -42°C whereas butane only has a poor function below 0°C. Propane is almost always used for this purpose. The bottles are filled with gas as a liquid as well as a gaseous. When the bottle is filled, the gas changes to a fluid due to the pressure. When the valve of the bottle is opened, the liquid converts back to gas.

In this respect, gas is dangerous as leaking gas can ignite and is therefore explosive. As propane is one and a half and butane is twice the weight of air, the leaking gas falls the lowest possible point.

Gas is completely free of toxic substances. When breathing in, gas may lead to a narcotic effect as well as cause difficulty in breathing and nausea. When breathing in normal air or oxygen, the symptoms disappear quickly. As the gas is toxic-free and heavier than air, an aromatic substance is added to it that gives it a significant and penetrating odour.



→ The butane gas mixed to the propane gas can no longer transfer to a gaseous state below 0 °C. For this purpose, makes sure that there is a residual amount of butane gas in the gas bottle at the end of Winter. The gas tanks can be filled to 80 % with butane gas!

Burning



→ When gas is burned completely, only carbon dioxide (CO₂) and water vapour are generated, just like our own breath. A good supply of air is necessary in order to achieve a complete combustion. The flame should have a weak blue appearance and a blue-green core. Gas is exceptionally environmentally friendly and does not emit soot when burned completely. The bottle has an unlimited shelf life without its quality being affected.

Pressure

The operating pressure for gas-operated camping equipment is: 30 mbar.
The gas pressure in the bottle is reduced to 30 mbar by a pressure regulator.

8.3 Gas consumption



→ The specifications for the gas consumption of the individual gas devices are only average reference values.

Consumer	Gas consumption in g/h
Heating	approx. 170 - 490
Cooker, per cooking area	approx. 140 - 165
Fridge	approx. 18 - 30

Tab. 5 Gas consumption

8.4 Gas bottles



- Transport the gas bottles only in the gas compartment.
- Position the gas bottle vertically in the gas compartment and lash tight so that it cannot turn.
- Close the main shut-off valve on the gas bottle before removing the gas pressure regulator or the gas hose from the gas bottle.
- Close the gas pressure regulator on the gas bottle only by hand. Do not use tools.
- Only use special gas pressure regulators with safety valve for use in vehicles. Other gas pressure regulators are not permitted and do not satisfy the high demands.
- Only use 11 kg or 5 kg gas bottles (only use 5 kg gas bottles with the LOW version). Camping gas bottles with check valve installed (blue bottle with max. 2.5 kg or 3 kg volume) may be used with a safety valve in exceptional cases.
- Use a hose length as short as possible for gas bottles outside (max. 150 cm).
- Check the gas hose for wear and cracks at regular intervals. Observe the expiry date.



- Screw fittings on the gas pressure regulator have a left-hand thread.
- The gas pressure regulator reduces the gas pressure of the gas bottle to the operating pressure of the gas devices.

8.5 Changing the gas bottles



- After changing the gas bottle, check if gas is escaping from the connecting point. For this purpose, spray the connecting point with gas detection spray.
- Close the gas compartment door and check the seals at regular intervals.



- The gas hoses must be installed free of kinks. Otherwise the gas supply will be impaired.



- The gas bottle box is located on the left on the inside rear of the vehicle.
- Before opening the gas bottle, observe the sticker.



Fig. 50 Gas compartment

Changing the gas bottles:

1. Open the furniture doors (Fig. 50, Pos. 1) for the gas compartment.
2. Close the main shut-off valve (Fig. 50, Pos. 2) on the gas bottle (observe the direction of the arrow).
3. Open the knurled nut (Fig. 50, Pos. 3) (left-hand thread).
4. Remove the gas hose from the gas bottle.
5. Undo the securing strap (Fig. 50, Pos. 4) and remove the gas bottle.
6. Place the filled gas bottle in the gas bottle box.
7. Secure the gas bottle with the securing straps (Fig. 50, Pos. 4).
8. Put the gas hose on the gas bottle and tighten the knurled nut (Fig. 50, Pos. 3) by hand (left-hand thread).
9. Close the furniture doors (Fig. 50, Pos. 1) and lock them.

8.6 Gas shut-off valve

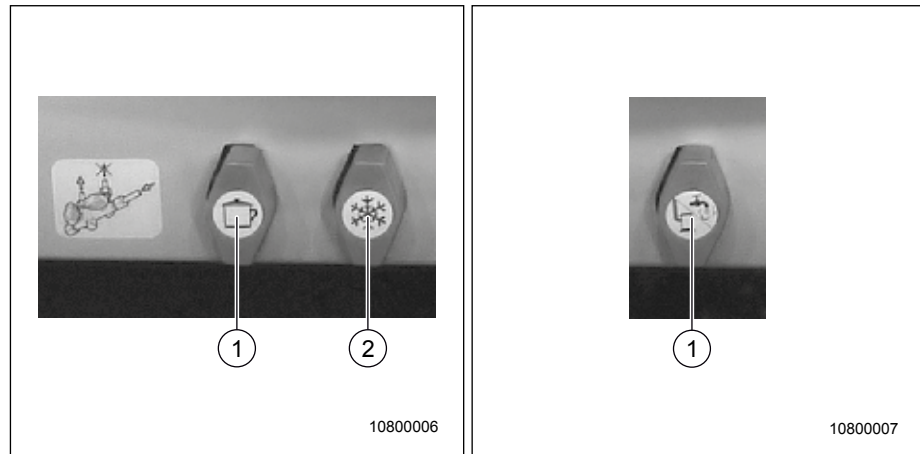


Fig. 51 Gas shut-off valve, cooker and fridge Fig. 52 Gas shut-off valve, heater

A gas shut-off valve is installed in the Malibu box-type van for every gas device.

- The gas shut-off valve for the hob (Fig. 51, Pos. 1) and the fridge (Fig. 51, Pos. 2) are located underneath the kitchen work surface.
- The gas shut-off valve for the heater (Fig. 52, Pos. 1) is located underneath the bed.

The symbols for the gas shut-off valve are each assigned to a gas device.

Chapter Overview

In this chapter, you will find information on the built-in appliances of your Malibu box-type van.

The information only refers to the operation of the built-in appliances. Further information on the built-in appliances can be obtained from the operating instructions of the built-in appliances that are enclosed separately in the vehicle.

The operating instructions affects, in detail:

- the heater
- the gas cooker
- the fridge

9 Built-in appliances

9.1 General



→ Further information and notes can be obtained from the separate instructions of the respective product manufacturer enclosed with this vehicle.

Depending on the model, the built-in appliances heater / boiler, cooking area and fridge are installed in your Malibu box-type van.

Only the operation and the special features of the built-in appliances are described in the Malibu box-type van user manual.

Before putting a gas-operated built-in appliance into operation, open the main shut-off valve on the gas bottle, and the respective gas shut-off valve.

9.2 Heating



Risk of explosion!

- Never allow unburned gas to escape due to the risk of explosion.
- When filling the fuel tanks, on ferries and in the garage, the heater must be switched off due to the risk of explosion.



- The circulating air blower switches on automatically when the heater is switched on, and then remains in continuous operation. As a result, the living area battery is highly burdened if the Malibu box-type van is not connected to an external 230 V supply. Take note that the living area battery only has a limited supply of energy.

When putting the heater into operation for the first time, a slight smoke and unpleasant smell occurs. Set the heater to the highest level on the control switch immediately. Open the windows and doors, and ventilate well. The smoke and odour disappear after a while by themselves. For controlling the desired inside temperature, use the venting nozzles installed in the living area.



→ Further details and information with regards to the operation and maintenance of the heater can be found in the vehicle and equipment manufacturer's manual.

9.2.1 Installation position and access to the heating

The heating is on the left-hand side of the vehicle beneath the bed behind the hatch.



Damage due to overheating

→ Covering or blocking the ventilation grille (Fig. 53, Pos. 3) causes overheating and leads to damage to the surrounding components.

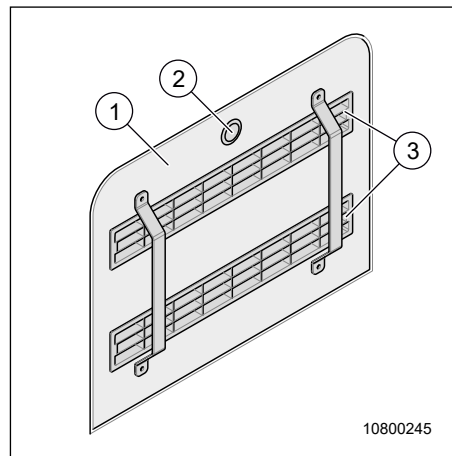


Fig. 53 Heating hatch

Access to the heating:

- Open the hatch (Fig. 53, Pos. 1) by pressing the push-lock (Fig. 53, Pos. 2).

Returning to the original state is carried out in reverse order.

9.2.2 Water from the boiler and lines



- Completely empty the boiler if there is a risk of frost. The guarantee does not cover damage caused by frost.
- The drain cock only has a limited frost protection. If the drain hose should be blocked due to ice or dirt, automatic emptying is no longer possible. Damage may be caused to the heating device.

Filling and emptying the container and the lines is described in chapter "10.2.4 Filling/emptying the pipeline system" on page 82.

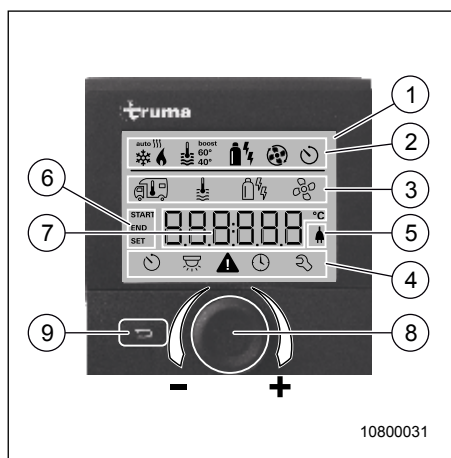
The drain cock (Fig. 61, Pos. A) is located inside the rear left under the bed.



→ Further details and information on the subject of heating can be found in the device manufacturer's manual provided with the vehicle.

9.2.3 Truma CP plus

The rotary / push button (Fig. 54, Pos. 8) is used to select the menus or to change the values to be set.



- 1 Display
- 2 Status line
- 3 Menu line (top)
- 4 Menu line (bottom)
- 5 230 V mains voltage display (grid current)
- 6 Time switch clock display
- 7 Settings / values
- 8 Rotary / push button
- 9 Back button

Fig. 54 Truma CP plus display control

9.2.4 Truma CP plus - iNet (special equipment)

The vehicle can be equipped with a Truma CP plus - iNet as special equipment.



→ Further details and information on the subject of heating can be found in the device manufacturer's manual provided with the vehicle.

Setting the operating types:

- Turn the rotary / push button to the right or left to select a menu item or to change the values.
- Press the rotary / push button to activate the menu item or to take over the set value.
- To switch the operating panel on or off, press the rotary / push button for longer than 3 seconds.

You go back to the previous menu or screen using the back button (Fig. 54, Pos. 9).



→ Further details and information with regards to operation can be found in the separate manual of the device manufacture.

9.3 Cooking area



Risk of explosion!

- Never allow unburned gas to escape due to the risk of explosion.
- Before putting the cooking area into operation, ensure for sufficient ventilation. Open the hinged window or roof hood.
- Do not use the cooking area for heating.

9.3.1 Gas cooker



Risk of explosion!

- When switching on and when the gas cooker is in operation, do not leave any objects that can burn near to the gas cooker.
- The ignition procedure must be visible from above and must not be covered by pots or pans on top of it.



- Do not use the gas cooker cover as a cooking zone.
- Do not close the gas cooker cover when the gas cooker is being used.
- Only use matching pots and pan sizes for the respective grids. Pots and pans that are too large may lead to damage caused by the accumulation of heat.
- Gently guide the cover onto the gas cooker. Do not let it drop!
- Do not load the gas cooker cover using pressure when it is closed.
- Never place any hot pots or pans on the gas cooker cover.



Fig. 55 Cooking area

Switching on the cooking area:

1. Open the gas cooker cover.
2. Open the main shut-off valve on the gas bottle and the gas shut-off valve "cooking area".
3. Turn the rotary knob (Fig. 55, Pos. 1) to "high flame", press and keep pressed.
Gas flows to the burner.

4. Press the switch (Fig. 55, Pos. 2). The ignition process starts.
5. After igniting the burner, keep the rotary knob (Fig. 55, Pos. 1) pressed for another approx. 15 seconds until the ignition safety valve keeps the gas flow open alone.
6. Set the desired burner position on the rotary knob (Fig. 55, Pos. 1).

Switching off the cooking area:

1. Turn the rotary knob (Fig. 55, Pos. 1) to the "0" position. The flame goes out.
2. Close the gas shut-off valve "cooking area" and main shut-off valve on the gas bottle.
3. Allow gas cooker to cool down before closing the cover.



→ If the flame does not go out, the ignition safety valve blocks the gas supply automatically.



→ Further details and information with regards to the gas cooker can be found in the vehicle and manual of the device manufacture.

9.4 Fridge



→ The battery capacity is limited when operating the fridge. If the fridge is not connected to a 230 V power supply, the device switches off after a while.

9.4.1 Absorber fridge

When travelling, the fridge may only be operated with 12 V power supply via the wiring system.

Optimum cooling is no longer guaranteed at ambient temperatures above +40 °C.

The cooling performance of the absorber fridge has a maximum temperature difference of 25°C.

Fridge RMxx 53xx: Fridge trim control elements



Risk of explosion!

→ When filling the vehicle with fuel, the fridge in gas operation must be switched off due to the risk of explosion!

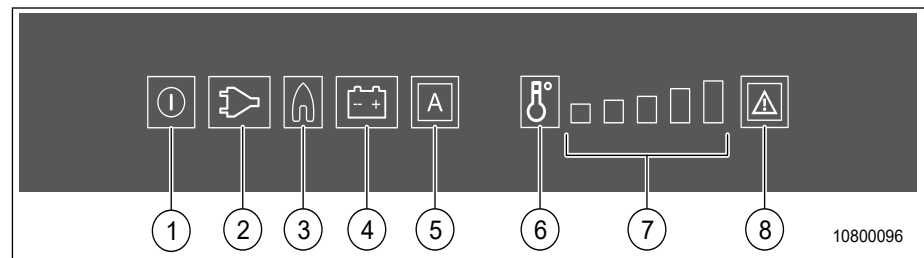


Fig. 56 Fridge RMxx 53xx

- | | |
|---------------------------------|--|
| 1 Button On / Off | 5 Selection button "Automatic" |
| 2 Energy selection button 230 V | 6 Temperature level button |
| 3 Energy selection button Gas | 7 Temperature level display |
| 4 Energy selection button 12 V | 8 External display "Fault / Reset", gas fault button |



→ Further details and information with regards to the fridge can be found in the vehicle and manual of the device manufacture.

9.4.2 Compressor fridge

The fridge is operated via a 12 V power supply.
Optimum cooling is no longer guaranteed with ambient temperatures above +32 °C.



→ The compressor fridge is safeguarded via the fuse of the step on the electric block.

Chapter Overview

In this chapter, you will find information for the sanitary facilities of your Malibu box-type van.

The information affects, in detail:

- the water supply
- the fresh-water tank
- the waste water tank
- the toilet
- the bathroom
- the toilet
- the shower grating

10 Sanitary facility

10.1 Water supply

The Malibu box-type van is equipped with installed water tanks. An electric operated immersion water pump pumps the water to the individual water supply points.

All taps are contact-controlled. If these are opened, the immersion water pump is actuated and therefore starts to pump.



- Fill the fresh-water tank only with water.
- If there is a risk of frost, drain the entire water system, or heat the Malibu box-type van.
- The water pump runs hot without water and may be damaged. Never operate the water pump when the water tank is empty.
- Thoroughly clean the water tanks before each use.

Before using the Malibu box-type van each time, rinse through the water lines and the water tank thoroughly using several litres of water. For this purpose, open all taps and the shower head. After using the Malibu box-type van each time, completely empty the water tank and drain the water lines.

10.1.1 Water

Standing water in the water tank or in the water lines will be unusable after a short period.



- The tanks must only be emptied at disposal stations, on camping places or at disposal possibilities especially identified for this purpose.

10.1.2 Filling quantity

The filling quantity for the water and waste-water tank can be obtained in the purchase documents of the Malibu box-type van. The fill level of the fresh and waste water tanks can be checked on the control panel.

10.2 Fresh water system

10.2.1 Water filler neck

The water tank is located on the right side of your Malibu box-type van. The water filler neck (Fig. 57, Pos. 1) is marked by the lettering "Water". The sealing caps can be opened and locked using the vehicle key.

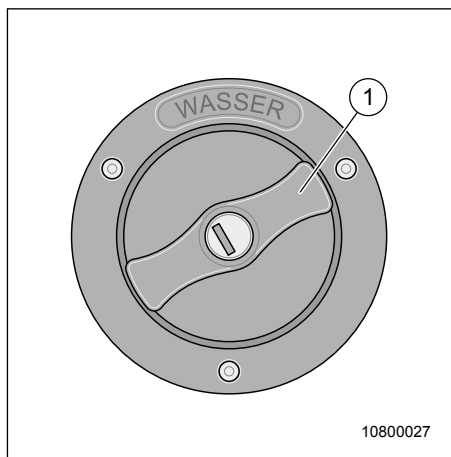


Fig. 57 Water filler neck

Open the water filler neck:

1. Insert the key in the lock cylinder (Fig. 57, Pos. 1) and turn a quarter turn counter-clockwise. Remove the key.
2. Turn the sealing cap a quarter turn counter-clockwise, and remove.
3. Fill water tank.

Close the water filler neck:

1. Put the sealing cap onto the water filler neck. Turn sealing cap by a quarter turn clockwise. The sealing cap engages.
2. Insert the key in the lock cylinder (Fig. 57, Pos. 1) and turn a quarter turn clockwise.
3. Remove the key.
4. Check whether the sealing cap turns without opening.

10.2.2 Filling/emptying the fresh water tank



Damage to the water pump from running dry!

→ Always operate the water pump with water.



→ When filling the water tank, generally observe the total weight of the Malibu box-type van. If the water tank is full, the amount of luggage must be reduced accordingly.

→ The water filling can be monitored via the control panel.

→ The filling must be completed when the water level display is at 100%.

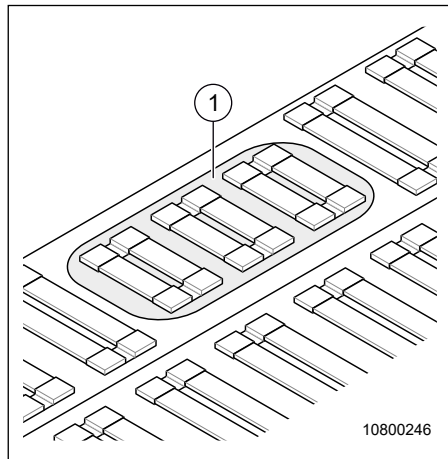


Fig. 58 Fresh water tank service hatch

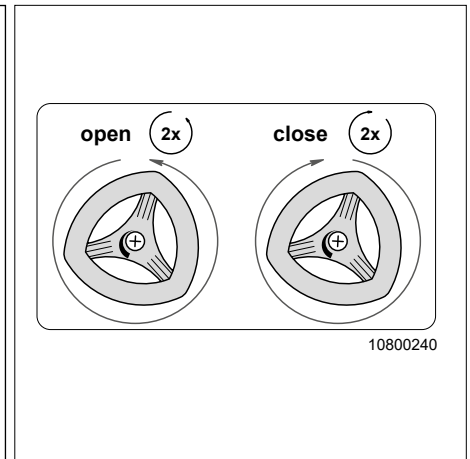


Fig. 59 Filling / emptying the fresh water tank



→ Close the drain tap to fill the fresh-water tank.

Filling the fresh water tank:

1. Position the Malibu box-type van horizontally.
2. Remove the service hatch (Fig. 58, Pos. 1).
3. Turn drain tap (Fig. 59) clockwise to close the fresh water tank.
Tighten the drain tap (Fig. 59) finger-tight. Do not force it shut!
4. Fill the fresh water via the filler neck.
5. Stop filling once the water level display on the control panel indicates 100 %.
6. Close the service hatch (Fig. 58, Pos. 1).
7. Close the water filler neck (Fig. 57).

Emptying the fresh water tank:

1. Position the Malibu box-type van horizontally.
2. Remove the service hatch (Fig. 58, Pos. 1).
3. Turn drain tap (Fig. 59) anticlockwise by two turns to open the water tank.
4. Existing residual water is extracted via the water pump.
5. Allow the water system to dry for as long as possible.
6. Close the service hatch (Fig. 58, Pos. 1).
7. Close the water filler neck (Fig. 57).

10.2.3 Weight reduction when driving

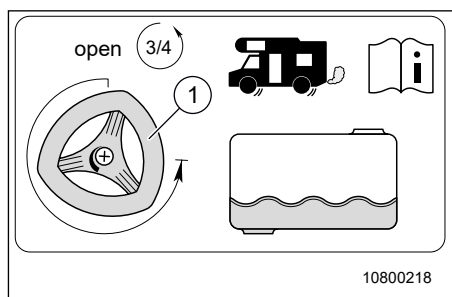


Fig. 60 Weight reduction

The filling quantity of the water tank can be reduced to 20 litres when driving.

Weight reduction:

- Close the stopcock (Fig. 60, Pos. 1) by rotating it 3/4 of a turn in the anti-clockwise direction. Excess water drains from the water drain.

10.2.4 Filling/emptying the pipeline system



Damage to the water pump!

- Long periods of dry running will damage the water pump.
 - Always operate the water pump with water!
- Risk of frost at cold temperatures.
 - Completely empty all lines, water taps and spray heads.
 - To drain the water pump, switch on and off at the control panel for a short time.



- Further details and information on the subject of heating can be found in the device manufacturer's manual provided with the vehicle.

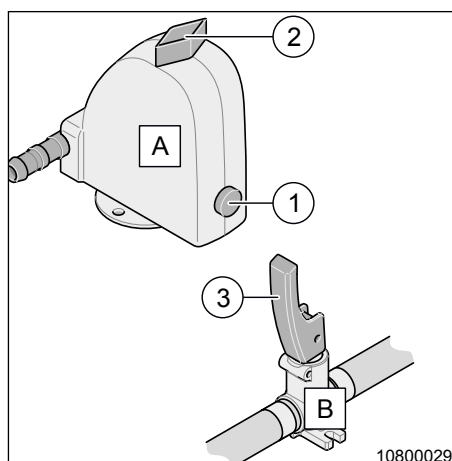


Fig. 61 Boiler drain tap

- A** Cold water
Figure shows the drain tap closed.
- B** Hot water
Figure shows the drain tap opened.



→ Move the tilting lever (Fig. 61, Pos. 3) of the drain taps (Fig. 61, Pos. B) either vertical or horizontal and no other position! Twisting the tilting lever could damage the seal in the drain tap leading to it leaking.

Filling process:

1. Move the blue twist lock (Fig. 61, Pos. 2) on the drain tap (Fig. 61, Pos. A) crosswise.
2. Press the knob (Fig. 61, Pos. 1) and lock at the same time (Fig. 61, Pos. 2).
3. Close drain tap (Fig. 61, Pos. B). Move the tilting lever (Fig. 61, Pos. 3) to the horizontal position to do this.
4. Open all water taps and the spray head and move to "warm".
The water pump pumps the water out of the water tank to the boiler.
5. Keep the water taps open long enough until the water runs out of the water taps without any bubbles.
The boiler is filled with water.
6. Move all water taps to "cold" and leave open.
The cold water lines are filled with water.
7. Keep the water taps open long enough until the water runs out of the water taps without any bubbles.
8. Close all water taps again.

Emptying procedure:

1. Switch off the boiler.
2. Perform the tank emptying (see chapter 10.2.2).
3. Switch off the water pump at the control panel (Fig. 44, Pos. 1).
4. Open all water taps and the spray head and move to the middle position.
5. Place the spray head with the hose into the shower tray or the sink/wash-basin in a position that is as low down as possible.
6. Open the drain tap (Fig. 61, Pos. A). To do this, turn the twist lock (Fig. 61, Pos. 2) to the lengthwise position.
7. Open the drain tap (Fig. 61, Pos. B). To do this, move the tilting lever (Fig. 61, Pos. 3) to the vertical position.
The water boiler is emptied via the same drain taps.
8. Check if the water runs out of the boiler.



→ After draining the water system, close all taps. Due to the contact-controlled taps, the immersion water pump keeps starting.

10.3 Waste water system

10.3.1 Waste-water tank

The Malibu box-type van is equipped with a fixed installed water tank. The dirty water is drained via the waste water line.

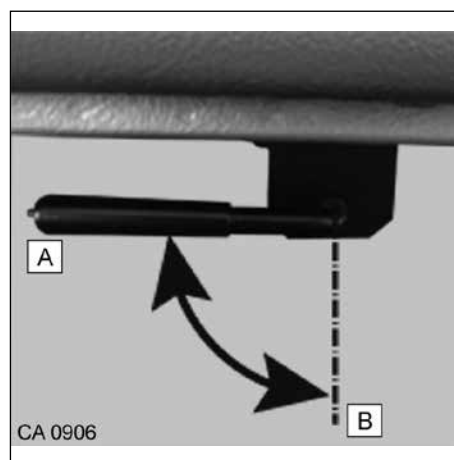
Position of the drain tap: In direction of travel at bottom right-hand side, in front of the rear wheel



- There is a risk of frost at temperatures below 0°C. Empty the waste water tank immediately.
- Never pour boiling water directly into the sink drain. Boiling water can lead to deformation and leaks in the waste-water pipe system.
- If the fill level display on the control panel indicates that the waste water tank is full, empty the waste water tank! A backlog will be caused if not emptied.
- In event of incorrect display of the fill level display, see chapter “14.6 Water supply” on page 120.



- The waste water tank must only be emptied at disposal stations, on camping places or at disposal possibilities especially identified for this purpose.



- A** Drain tap closed.
- B** Drain tap opened.

Fig. 62 Waste water tank draining, drain tap closed

Emptying the waste water tank:

1. Drive the vehicle over an suitable draining location or connect a drain hose.
2. Open the drain tap (Fig. 62, Pos. B).
3. After completely emptying, close the drain tap (Fig. 62, Pos. A).

10.3.2 Waste water tank heating

The additional heating of the waste water tank and the waste water pipes prevents the waste water from freezing at low temperatures.

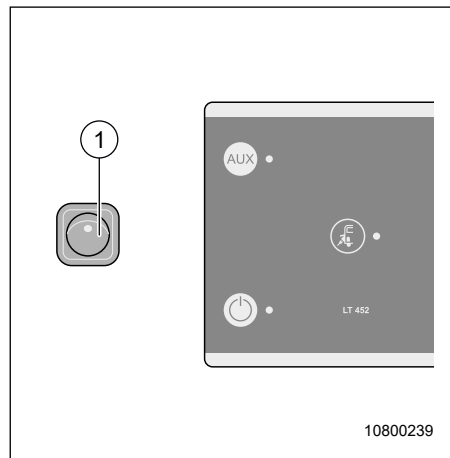


Fig. 63 Waste water tank heater switch

The heater can be switched on and off using switch (Fig. 63, Pos. 1) next to the control panel.

The LED on the switch lights red when the heater is on.

The LED on the switch does not illuminate when the heater is off.

10.4 Odour trap

In order to prevent possible unpleasant odours from the waste water system, the vehicle is equipped with odour traps (Fig. 64, Pos. 1).

10.4.1 Odour trap (syphon)

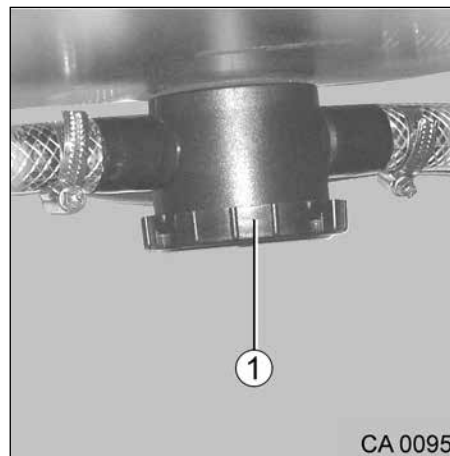


Fig. 64 Odour trap

These are installed:

- on the washbasin in the bathroom (except 540 and 600 LE).
- on the sink in the kitchen.

Cleaning the odour trap with cover:

1. Unscrew the cap of the odour trap (Fig. 64, Pos. 1) anticlockwise to remove.
2. Clean the odour trap and the inside of the cover (Fig. 64, Pos. 1).
3. Screw the cover (Fig. 64, Pos. 1) back onto the odour trap clockwise.

10.4.2 Pipe odour trap with flap

The pipe odour trap (Fig. 65, Pos. 1) is located beneath the vehicle at the waste water tank (Fig. 65, Pos. 3).

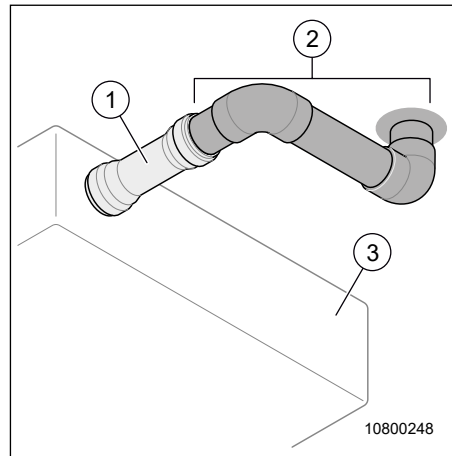


Fig. 65 Pipe odour trap

The pipe odour trap is mounted:

- at the shower drain.
- at the washbasin in the bathroom (540 and 600 LE).



→ If the pipe odour trap (Fig. 65, Pos. 1) and the pipe connection system (Fig. 65, Pos. 2) require cleaning, please contact a service partner.

10.5 Toilet/bathroom



- Do not transport loads in the shower tray in order to avoid causing damage to the shower tray or other installations in the toilet.
- Do not sit on the toilet cover. The cover has not been designed for the weight of persons and may break.
- Use an appropriate chemical for the toilet. The ventilation only eliminates the odour, but not the germs and gases. Germs and gases attack the sealing rubbers.



- For venting during or after taking a shower, or for drying wet clothing, close the toilet door and open the roof hood of the toilet. This allows better circulation of the air.
- After taking a shower, rinse any soap residues from the shower tray preventing cracks forming in the shower tray over time.
- Dry the shower after use otherwise moisture will accumulate.

10.5.1 Swivelling toilet in long bathroom



Fig. 66 Toilet

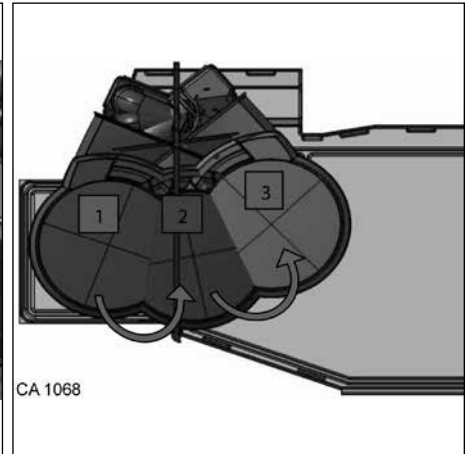


Fig. 67 Toilet locking point

Swivelling the toilet away:

1. Turn the rotary handle (Fig. 66, Pos. 1) approx. 1/4 turn clockwise as far as it will go and hold in place.
2. Pull the toilet (Fig. 66, Pos. 2) forwards to the desired engaging point (Fig. 67).

To swivel using your foot, use the lever on the bottom side of the toilet.



- Locking point 1: stowage position when taking a shower / washing.
- Locking point 2: Position for removing the cassette.
- Locking point 3: Position for using the toilet.

Swivelling the toilet in:

- Push the toilet back in the reverse order.



- When travelling, engage the toilet fixed in one position.

10.5.2 Swivelling toilet in short bathroom (LOW-BED version)

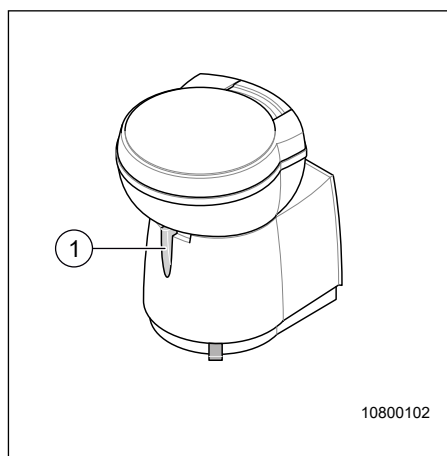


Fig. 68 Toilet flushing

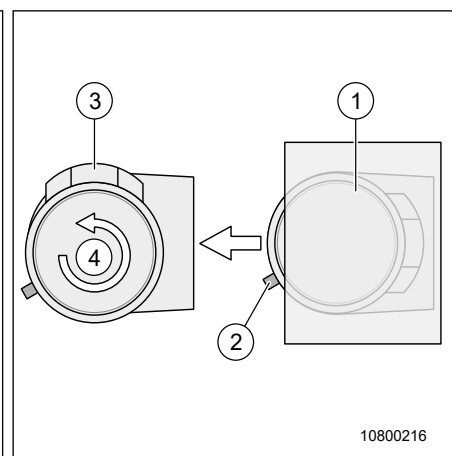


Fig. 69 Toilet locking point

Swivelling the toilet away:

1. Unlock the toilet by lifting the locking lever (Fig. 69, Pos. 2).
 2. Pull the toilet out of the side wall (Fig. 69, Pos. 1) to locking point 2 (Fig. 69, Pos. 3).
 3. Turn the toilet seat (Fig. 69, Pos. 4) to the front.
- To flush, use the lever (Fig. 68, Pos 1) on the underside of the toilet.



- Locking point 1: Storage position for showering / washing (Fig. 69, Pos. 1).
- Locking point 2: Position for removing the cassette and for using the toilet (Fig. 69, Pos. 3).

Swivelling the toilet in:

- Push the toilet back in the reverse order.



- When travelling, swivel in the toilet (Fig. 69, Pos. 1).

10.5.3 Cleaning the toilet cassette

The cassette toilet is rinsed directly via the water system of the vehicle.

The toilet service hatch is located at the level of the toilet in the direction of travel.



- Empty the toilet cassette if there is a risk of frost and the Malibu box-type van is not heated.
- Depending on the vehicle, the toilet seat must be moved to position (Fig. 67, Pos. 2) or (Fig. 69, Pos. 3) otherwise damage may be caused to the toilet or the cassette during removal.



→ The toilet cassette may only be emptied at disposal stations, at camp sites or at disposal facilities that are specially intended for this purpose.



→ Further information about cassette toilets can be found in the separate instructions from the device manufacturer.

→ Further information about operating the toilet service flap can be found in the separate instructions from the device manufacturer.



→ Another toilet is available on request. (Special equipment)

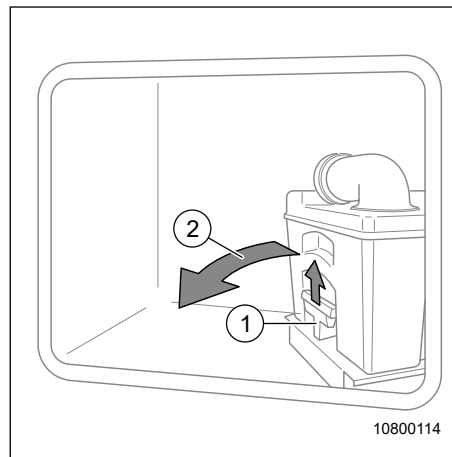


Fig. 70 Removing the cassette

Removing the cassette:

1. Open the toilet flap (see chapter 6.4.1 on page 41).
2. Depending on the vehicle, put the toilet into the removal position (Fig. 67, Pos. 2) or (Fig. 69, Pos. 3).
3. Pull the handle on the cassette (Fig. 70, Pos 1) upwards to unlock.



→ Depending on the vehicle, rotate the cassette to the service opening (Fig. 70, Pos. 2).

4. Remove the cassette out of the service opening.

Inserting the cassette:

Installation is carried out in reverse order.

10.5.4 Shower walls

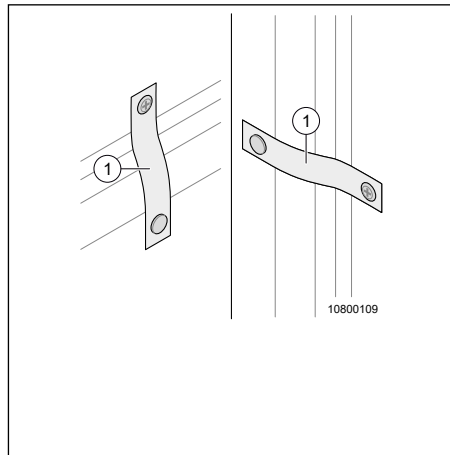


Fig. 71 Securing the shower walls

To open the shower walls, release the press stud straps (Fig. 71, Pos. 1) and move to the intended positions in the shower walls.



→ When travelling, secure the shower walls with the press stud straps (Fig. 71, Pos. 1).

10.5.5 Sink



→ When travelling, fold in the sink (LOW-BED version).

10.5.6 Sliding door

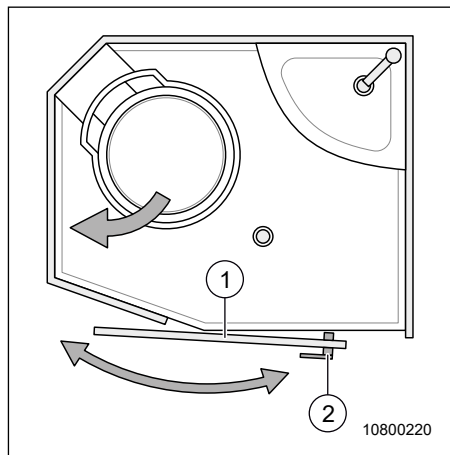


Fig. 72 Opening / closing the sliding door

Open the sliding door:

1. To open, turn rotary knob (Fig. 72, Pos. 2) clockwise.
2. Open sliding door (Fig. 72, Pos. 1) to the left.
Close sliding door (Fig. 72, Pos. 1) to the right.

10.6 Shower grating



→ Stow away the shower grating while driving.

Remove the shower grating before showering.

Chapter Overview

In this chapter, you will find information on the care of your Malibu box-type van.

The care instructions affects, in detail:

- the exterior of the Malibu box-type van
- the interior
- the winter operation

At the end of the chapter you will find check lists with measures that you have to carry out if you do not want to use the Malibu box-type van for a longer period.

The check lists affect, in detail:

- temporary ceasing of operations
- ceasing of options during winter
- putting back into operation after ceasing operation

11 Care

11.1 Care outside

11.1.1 Washing the Malibu box-type van



- Never rub acrylic glass windows when dry as dust particles might damage the surface.
- Never use cleaning agents containing chemicals, scouring agent or alcohol.
- Never use cleaning agents containing solvents. This would lead to a premature brittleness of the plastic panelling and subsequent formation of cracks.

- Clean the Malibu box-type van only on a washing area that is intended for washing vehicles. Avoid direct sun radiation. Observe environmental protection measures!
- Clean the Malibu box-type van thoroughly after trips to the seaside. The high salt content in the air may damage the surfaces.
- Clean the Malibu box-type van with plenty of water, a clean sponge or a soft brush. Add caravan cleaner to the water with stubborn dirt.
- Clean exterior applications and attachment parts made of plastic only with lots of warm water and a soft cloth.
- Painted exterior walls can also be cleaned using commercially available caravan cleaning agent.
- Treat the rubber seals on the doors and service hatches with solvent-free rubber care agent.
- Treat the locking cylinders on the doors and service hatches with care agent for lock cylinders. Never use adhesive or contaminating agents (e.g., oil, graphite). Never use cleaning agents that contain components that promote corrosion.

11.1.2 Using a high-pressure cleaner for washing



- Do not clean the tyres with a high-pressure cleaner. The tyres might be damaged.
- Do not direct the water jet direct on the door gap, electric attachment parts, plug connectors, seal or in the fridge ventilation grille. The Malibu box-type van may be damaged.



- Before washing the Malibu box-type van with a high-pressure cleaner, observe the operating instructions of the high-pressure cleaner.

When washing, maintain the following minimum clearances between the Malibu box-type van and the high-pressure nozzles:

- with round jet nozzles, approx. 700 mm
- with 25° flat jet nozzle and dirt blaster, approx. 300 mm

Take note that the water jet comes out of the cleaning brush at pressure. Damage may be caused to the Malibu box-type van if high-pressure cleaners are not used correctly.

The water temperature of 60°C must not be exceeded. Move the water jet during the entire wash cycle.

11.1.3 Window panes made of acrylic glass

Due to their sensitivity, acrylic glass window panes need a particularly careful treatment.



- Never rub acrylic glass windows when dry as dust particles might damage the surface.
- Clean only with lots of warm water and a soft cloth.
- Never use cleaning agents containing chemicals, scouring agent or alcohol. Never use cleaning agents containing solvents. This would lead to a premature brittleness of the plates and subsequent formation of cracks.
- Avoid contact of cleansing agents used for the main body construction (e.g., tar or silicone removing agents) with acrylic glass.
- Do not drive into car wash units.
- Do not apply stickers.
- After cleaning the Malibu box-type van, rinse the acrylic glass windows again with sufficient clear water.
- Treat rubber seals with solvent-free rubber care agent.
- Clean and maintain the movement spindle with oil spray at regular intervals.



- An acrylic glass cleaner with anti-static effect is suitable for follow-up treatment. Small scratches can be treated with an acrylic glass polish. These products can be procured via your Malibu trade partner.

11.1.4 Care and maintenance of exterior applications



- Exterior applications are wash-proof and must be cleaned in the same manner as the Malibu box-type van..
- Do not clean exterior applications with solvents.

11.1.5 Cleaning the chrome parts

To clean the chrome parts, use the following cleaning agents:

- Stainless steel & chrome gloss polish made by Rot/Weiss

11.2 water tank

The water tank and supplementary tanks cannot be completely emptied via the drain taps. This could lead to the formation of germs.

Water tanks, if the vehicle is parked for longer periods, either

- dry manually via the cleaning opening
- or
- use recommended care agent (e.g., from Multiman)

11.3 Waste-water tank

Clean the waste water tank after using the Malibu box-type van each time.

- Empty waste-water tank
- Thoroughly rinse out the waste water tank with fresh water.
- In event of contamination on the waste water sensor, clean carefully by hand.

The coating of the sensor rod must not be damaged in the process.

- Recommended care agent, for example, Dr. Keddo or Multiman.

11.4 Entrance step



- If the entrance step is lubricated, coarse particles of dirt can settle on the lubricant during the journey and impair or cause damage to the operating mechanism of the entrance step. Therefore, do not lubricate the moving parts of the entrance step.

11.5 Care inside



- In order to avoid tension cracks in acrylic glass, do not use aggressive cleaning / care agents.
- Only use cleaning agents of the window manufacturer.
- Due to their sensitivity, plastic parts need a particularly careful treatment. Never use cleaning agents containing solvents or alcohol as well as scouring agent containing sand! This procedure will help you to avoid brittleness and formation of cracks.
- Do not pour any corrosive agents into the drain holes. Never pour boiling water directly into the drain holes. Corrosive agents and boiling water cause damage to drain pipes and siphon traps.
- Do not use vinegar based products to clean the toilet and water system, or for decalcification of the water system. Vinegar-based products may cause damage to seals or parts of the installation. Use standard decalcifying products for decalcification.



- You can obtain further information from your Malibu trade partner.

Recommended care:

- Clean all surfaces of furniture, furniture handles as well as all plastic parts in the area of the toilet and living area with water and a soft cloth. A soft cleaning agent can be added to the water.
- With dry dirt, brush-off the micro-fibre wall covering using a soft clothes brush. Treat stains using the foam of a commercially available cleaning agent or a light cleaning agent solution (1%), stubborn stains should be treated using stain remover. Before doing that, first perform a trial at an inconspicuous spot. There is a risk of water edges forming.
- Clean upholstery materials with upholstery dry foam, or with the foam of a mild washing detergent. Do not wash the upholstery material. Protect the padding against sun radiation so that they do not fade.
- Vacuum the Antara covers with the brush adapter of the vacuum cleaner. Dab away moist stains with an absorbent cloth or sponge. Brush away dry dirt using a soft clothes brush and then dab with a moist cloth or sponge. Never rub, and never use domestic cleaning agents (e.g., washing up liquid)! Follow the care instructions of the manufacturer.
- Where required, clean carpets using carpet foam, and vacuum.
- Clean PVC flooring with cleaning detergent for PVC floors. Do not lay carpets on top of wet PVC flooring.
The carpet and PVC flooring may stick together.
- Never clean the sink and gas cooker with a scouring agent containing sand. Avoid everything that could cause scratches and scores.
- Clean the gas cooker only when it is wet. No water must enter the openings in the gas cooker. Water may damage the gas cooker.
- Brush away insect protection blind on windows and roof hoods using a soft brush, or vacuum away using the brush adapter of the vacuum cleaner.
- Brush away folded dark spots using a soft brush, or vacuum away using the brush adapter of the vacuum cleaner.

- Seat belts can be unrolled and cleaned using warm soap suds. The seat belt must be completely dry before rolling it back in.
- Bring curtains and drapes to the dry cleaners.



→ If the curtains are secured using hook and loop fasteners, they can be removed from the trim.

11.6 Winter care

Thawing salt may damage the undercarriage and those parts that are exposed to spray water. Malibu recommends that you wash the vehicle more frequently in winter. Mechanical and surface treated parts and the underside of the vehicle are particularly burdened and should therefore be cleaned thoroughly.



→ If there is any risk of frost, always run heater at a minimum of 15 °C. In case of extreme outdoor temperatures, the furniture flaps and doors should be left slightly open. The inflowing warm air can help prevent the freezing of water pipes, for example, and counteract the formation of condensation in the storage spaces.

→ If there is any risk of frost, also cover the windscreen with winter insulation mats

11.6.1 Preparation

- Check the Malibu box-type van for paint and rust damage. If applicable, repair the damage.
- The metal parts of the underfloor should be protected against rust using a protective agent on the basis of wax.
- Preserve painted outer parts with an appropriate agent.

11.6.2 Winter operation

In winter operation, condensed water will form at low temperatures when living in the Malibu box-type van. In order to ensure for a good quality of air in the room and to avoid damage being caused to the Malibu box-type van by condensed water, a sufficient ventilation is essential.

- During the heating phase of the Malibu box-type van, heat the heater to the highest level and open the overhead cabinets, curtains and roller blinds. This allows an optimum ventilation to be achieved.
- Heat only with circulation system switched on.
- Pick up all paddings in the morning, ventilate the storage cabinets and dry any moist points.



→ If condensation has still developed somewhere, simply wipe it off.

11.6.3 At the end of the winter season

- Wash the undercarriage and engine thoroughly. This removes thawing agents (salt, lye residues) that promote corrosion (have this carried out by an authorised specialist workshop).
- Carry out cleaning work on the outside and preserve the vehicle with commercially available car wax.




11.7 Taking out of operation

11.7.1 Temporary ceasing of operations



- After a longer standing period (approx. 10 months), have the brake system and the gas system checked by an authorised specialist workshop.
- Take into consideration that fresh water is undrinkable after only a short time.



Before taking out of operation, run through the check list:

Town	Activity	Complete
Basic vehicle	<ul style="list-style-type: none"> • Fill the fuel tank completely. This will prevent damage on the tank system being caused by corrosion. • Jack-up the Malibu box-type van so that the wheels are relieved, or move the Malibu box-type van monthly. This prevents pressure points being formed on the tyres and wheel bearings. • Always ensure for sufficient air circulation on the underfloor. <div>  → Humidity or lack of oxygen e.g. by covering with plastic film may cause optical irregularities to the underbody. </div>	
Interior	<ul style="list-style-type: none"> • Put up the padding for ventilation and cover. • Clean the fridge. • Leave the fridge door and freezer compartment open a little. 	
Gas system	<ul style="list-style-type: none"> • Close the main shut-off valve on the gas bottle. • Close all gas shut-off valves. • Always remove all gas bottles from the gas compartment, even when they are empty. 	
Electrical system	<ul style="list-style-type: none"> • Fully charge the living area battery and starter battery. <div>  → Before taking out of operation, charge for at least 20 hours. → Check the charge state monthly, charge if necessary. </div>	
Water system	<ul style="list-style-type: none"> • Drain the entire water system. <div>  Risk of freezing! → Make sure that the water system is free of water. </div>	

Tab. 6 Taking out of operation check list

11.7.2 Ceasing of options during winter

Supplementary measures are necessary for temporary ceasing of operation during winter.

Town	Activity	Complete
Basic vehicle	<ul style="list-style-type: none"> • Thoroughly clean the chassis and underfloor and spray with hot wax or preserve with paint care agent. • Fill the fuel tank with winter diesel. • Check the frost protection in the coolant. • Improve any damage to the paint. • Keep the forced ventilation open. • Brush the locking mechanisms with oil or glycerine. • Rub rubber care agent into all sealing rubbers. • Treat the locking cylinders with care agent for lock cylinders. • Clean and lubricate all door and hatch hinges. 	
Interior	<ul style="list-style-type: none"> • Setup a dehumidifier. • Remove the padding from the Malibu box-type van and store in a dry place. • Empty all cabinets and storage compartments and open furniture fronts, doors and drawers. • Thoroughly clean the inside. • Ventilate the interior every 3 weeks. 	
Electrical system	<p>Starter battery and living area battery:</p> <div style="display: flex; align-items: center;">  <div> <p>→ Before taking out of operation, charge for at least 20 hours.</p> <p>→ Check the charge state monthly, charge if necessary.</p> </div> </div>	
Water system	<ul style="list-style-type: none"> • Drain the entire water system. • Open the water taps and remove the fuse for the immersion pump from the electric block. <div style="display: flex; align-items: center;">  <div> <p>Risk of freezing!</p> <p>→ Make sure that the water system is free of water.</p> </div> </div>	
Entire vehicle	<ul style="list-style-type: none"> • Put on the cover tarpaulin in such a manner that the ventilation openings are not covered, or use breathable tarpaulins. 	


Tab. 7 Ceasing of options during winter check list

11.7.3 Putting the vehicle into operation following temporary ceasing of operation or after ceasing of options during winter



- After a longer standing period (approx. 10 months), have the brake system and the gas system checked by an authorised specialist workshop.
- Take into consideration that fresh water is undrinkable after only a short time.

Go through the check list before putting into operation:

Town	Activity	Complete
Basic vehicle	<ul style="list-style-type: none"> • Check inflation pressure • Check the inflation pressure of the spare wheel. • Clean the entrance step. • Check the function of the hinged window and roof hood. • Check the function of the exterior locks such as the ones on the storage compartment hatches, tank filler neck and entrance door. • Remove the winter cover from the fridge grills (if there is one) 	
Gas system	<ul style="list-style-type: none"> • Put the gas bottles in the gas bottle compartment, tie down and connect to the gas pressure regulator. 	
Electrical system	<ul style="list-style-type: none"> • Connect to 230 V supply via the socket outside. • Check the operation of the electrical system, e.g. interior lights, sockets and all electrical appliances. • Fully charge the living area battery and starter battery. <div style="display: flex; align-items: center;">  → Charge for at least 20 hours before commissioning. </div>	
Water system	<ul style="list-style-type: none"> • Use several litres of fresh water to rinse out water lines and water tank. Open all water taps for this purpose. • Check the function of the exterior valve for the waste water tank. • Close the drain taps and water taps. • Check the water taps, drain taps and water distributors for leaks when exposed to pump pressure. 	
Built-in appliances	<ul style="list-style-type: none"> • Check the function of the fridge. • Check the function of the heater / boiler. • Check the function of the gas cooker. 	

Tab. 8 Putting into operation check list

Chapter Overview

In this chapter, you will find information on the maintenance of your Malibu box-type van.

The information affects, in detail:

- maintenance work
- official inspections
- changing bulbs
- spare parts
- guarantee responsibilities

12 Maintenance

12.1 Maintenance work

As with every technical device, this vehicle requires maintenance. The extent and frequency of the maintenance work required depend on conditions of operation and use. More difficult operating conditions make it necessary to maintain the vehicle more often.

Inspection and maintenance work must be carried out by specialist personnel.

Special professional knowledge is required for this work that cannot be mediated in the scope of the operating instructions. This professional knowledge is available at all Malibu service stations. Experience and regular technical instructing by the factory as well as equipment and tools give the guarantee for a professional maintenance of the vehicle that corresponds to state of the art.

In the inspection verification for the main cabin living area in this user manual, the Malibu service stations confirm the work carried out.



- Observe the inspections listed in the inspection certificate and have them carried out in the prescribed intervals. This retains the value of your Malibu box-type van.
- The inspection certificate serves also as proof for any damage, guarantee claims and goodwill gestures.
- Observe the applicable terms of guarantee and warranty of Malibu GmbH & Co. KG.

12.2 Official inspections

An official general inspection (Hauptuntersuchung - HU) of road worthiness has to be carried out by a recognised body (see "Tab. 9 Test schedules" on page 102) at regular intervals in accordance with Section 29 of the German Traffic Licensing Regulations ("Straßenverkehrszulassungsordnung" (StVZO)) on Malibu box-type vans that are registered in Germany.

The respective local regulations apply in other countries.

An authorised specialist workshop has to inspect the gas system every 2 years. This also applies to vehicles that are not registered for road use. Modifications made to the gas system must be checked by an authorised specialist workshop immediately. The authorised specialists workshop certifies the inspection and the correct state in a gas inspection certificate. The gas inspection sticker is applied on the rear of the Malibu box-type van near the number plate.

Test schedules

Type of inspection	Engine	Technically permissible gross weight	Testing interval
Emission test	Diesel Diesel	up to 3.5 t more than 3 t	Every 2 years Annually
General inspection	Diesel Diesel	up to 3.5 t more than 3 t	Every 2 years Annually

Tab. 9 Test schedules

12.3 Main cabin lighting



- Carry out the bulb change in order not to cause damage to the protective glass or the bulb.
- Replace the bulbs only with a bulb that has the same design and electric values.

12.3.1 Recessed spotlight



Fig. 73 flush-mounted spot

Changing the bulb in the recessed spotlight:

1. Use a small screwdriver to carefully lever out the cover from the frame.
2. Remove the bulb.
3. Insert a new bulb.
4. Carefully press the cover back in.

12.3.2 Lamp with battery

Depending on the vehicle, there may be a battery-operated lamp in individual storage compartments or cabinets. The lamp is switched on automatically when the hatch/door is opened.

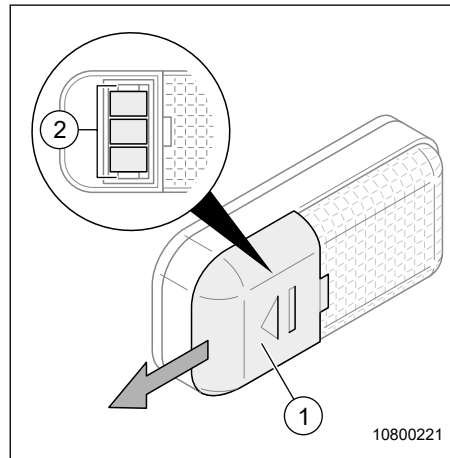


Fig. 74 Battery-operated lamp

- 1 Battery compartment cover
- 2 batteries



→ The lighting element of the light cannot be replaced.
Please contact your Carthago trade partner to change the lighting element.

Changing the battery:

1. Push battery compartment cover (Fig. 74, Pos. 1) to the side.
2. Replace the batteries (Fig. 74, Pos. 2) .



→ Make sure that the terminals are correct when changing the battery.
→ Use batteries of the same type.

3. Returning to the original state is carried out in reverse order.

12.4 Changing the bulbs on the rear light moulding

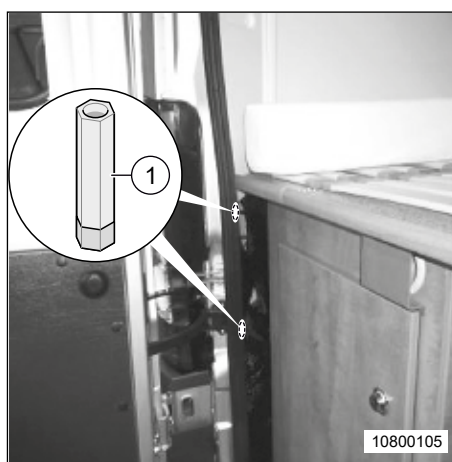


→ If the tool or a nut falls down when undoing the rear light moulding, you can reach the parts via an opening in the underfloor at the rear. The opening on the underfloor can be accessed on the vehicle from outside. It is sealed with a cover.

12.4.1 Undoing the rear lamp at the driver's side (high bed)



→ The openings for the nuts (Fig. 75, Pos. 1) are located in the vehicle pillar behind the insulation (Fig. 75).
 – The top nut is located in the opening direct under the bed plate.
 – The bottom nut is located underneath that in the opening.



1 Rear light nut

Fig. 75 Rear light, driver's side

1. Open the rear wing doors.
2. Remove protective caps.
3. Remove screws (PH1 or PZ1 screwdriver).
4. Remove cover strip.
5. Using a 17 mm socket, a joint and a ratchet, undo both nuts (Fig. 75, Pos. 1) and remove them.
6. Continue in chapter "12.4.5 Changing the bulbs on the rear light moulding" on page 107.



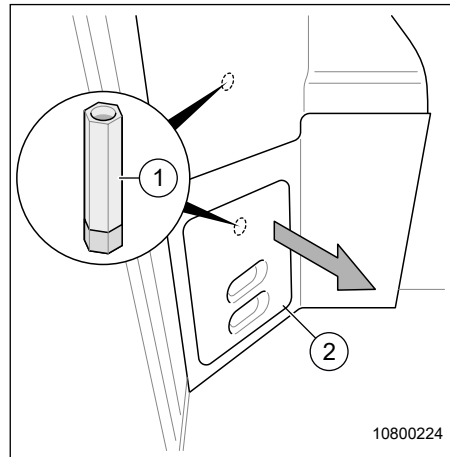
→ Upon reinstallation tighten nuts (Fig. 75, Pos. 1) and screws hand-tight.

Returning to the original state is carried out in reverse order.

12.4.2 Undo the rear lamp on the driver's side (low bed)



→ The openings for the nuts (Fig. 76, Pos. 1) are located in the vehicle pillar behind the cover (Fig. 76, Pos. 2).



- 1 Rear light nut
- 2 Bottom panelling

Fig. 76 Rear light, driver's side

1. Open the rear wing doors.
2. Remove the panelling (Fig. 76, Pos. 2).
3. Using a 17 mm socket, a joint and a ratchet, undo both nuts (Fig. 76, Pos. 1) and remove them.
4. Continue in chapter "12.4.5 Changing the bulbs on the rear light moulding" on page 107.



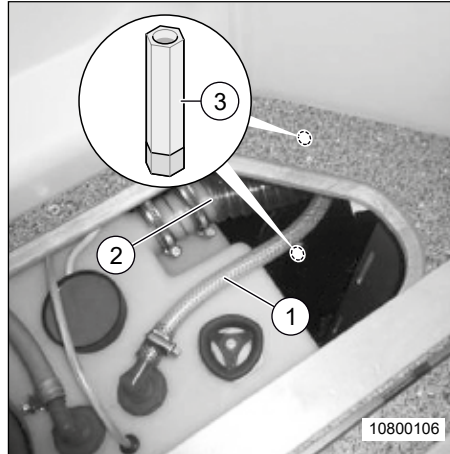
→ When returning to the original state, tighten the nuts (Fig. 76, Pos. 1) finger tight.

Returning to the original state is carried out in reverse order.

12.4.3 Loosening the rear light on the passenger side (floor plan 600)



- The openings for the nuts (Fig. 77, Pos. 3) are located in the vehicle pillar next to the fresh-water tank (Fig. 77).
- The top nut is located in the opening direct under the bed plate.
 - The bottom nut is located underneath that in the opening.



- 1 vent hose
- 2 Filling hose
- 3 Rear light nut

Fig. 77 Rear light, passenger side
Malibu 600

1. Open the rear wing doors.
2. Remove the mattress or padding.
3. Remove the cover above the fresh-water tank.
4. Undo the filling hose (Fig. 77, Pos. 2) and the venting hose (Fig. 77, Pos. 1) on the fresh-water tank and put aside.
5. Using a 17 mm socket, a short extension and a ratchet, undo both nuts (Fig. 77, Pos. 1) and remove them.
6. Continue in chapter "12.4.5 Changing the bulbs on the rear light moulding" on page 107.



- When returning to the original state, tighten the nuts (Fig. 77, Pos. 1) finger tight.

Returning to the original state is carried out in reverse order.

12.4.4 Loosening the rear light on the passenger side (floor plan 640)



- The openings for the nuts (Fig. 78, Pos. 1) are located in the vehicle pillar on the right side in the storage compartment under the bed plate (Fig. 78).
- The top nut is located in the opening direct under the bed plate.
 - The bottom nut is located underneath that in the opening.



Fig. 78 Rear light, passenger side Malibu 640

1. Open the rear wing doors.
2. Using a 17 mm socket, a short extension and a ratchet, undo both nuts (Fig. 78, Pos. 1) and remove them.
3. Continue in chapter “12.4.5 Changing the bulbs on the rear light moulding” on page 107.



- When returning to the original state, tighten the nuts (Fig. 78, Pos. 1) finger tight.

Returning to the original state is carried out in reverse order.

12.4.5 Changing the bulbs on the rear light moulding



- You can obtain further information in the separate instructions from FIAT.

12.5 Spare parts



- Every alteration of the original state of the vehicle can alter road behaviour and impair road safety
- The special equipment and original spare parts recommended for your vehicle by Malibu have been specially developed and approved by us. Your Malibu trade partner has these products. Your Malibu trade partner is informed about permissible technical details and carries out the required work correctly. The use of accessories, parts and fittings not approved by Malibu may cause damage to the vehicle and impair road safety. Even if an expert's report, a general type approval or a design certification has been provided for these parts, there is no guarantee for the correct properties of the product. We do not accept any liability for damage caused by products not approved by Malibu or by non-permitted alterations.

For safety reasons, spare parts for devices must correspond with specifications of the manufacturer' and be permitted by the manufacturer as a spare part. These spare parts may only be fitted by the manufacturer or an authorised specialist workshop. The Malibu trade partners and service stations are available for any spare parts requirement.

When ordering spare parts, specify the chassis number and vehicle type to your Malibu trade partner. The Malibu box-type van described in this user manual is built and equipped according to factory standards. Useful special equipment is offered depending on its purpose or use. When fitting special equipment check if these have to be entered in the vehicle documents. Observe the max. permissible gross weight of the Malibu box-type van. Your Malibu trade partner will be pleased to advise you.

12.6 Type plate and chassis- identification number

The type plate

The type plate with the chassis number is located in the entrance area. Never remove the type plate.

- Identifies the vehicle.
- Helps by procuring spare parts.
- Documents the vehicle owner together with the vehicle documents.



- Please specify your vehicle identification number when placing queries at your customer services.

The chassis identification number

The chassis- identification number is placed in various locations depending on manufacturer.

Fiat:

In the driver cabin step tread on the passenger side, facing forwards; covered with a plastic cap.

12.7 Warning and information stickers

There are warning and information stickers on and inside the vehicle. Warning and information stickers are for the sake of safety and must not be removed.



→ Replacement stickers can be obtained from your Malibu trade partner.

12.8 Guarantee responsibilities, service contacts

The devices installed in the Malibu box-type van are subject to the guarantee conditions and responsibilities of the device manufacturer.

The service contacts are listed in the respective documents supplied or can be obtained in internet.

Chassis manufacturer:

Fiat Camper Service

In event of breakdown, Fiat Camper Service can provide you and your Malibu box-type van on the Fiat basis with quick assistance. The Fiat Camper Service is available 24 hours a day. The emergency number applies anywhere in Europe.

Telephone number: 0 08 00-34 28 11 11

You can obtain more information on the homepage of Fiat Camper Service.

Device manufacturer:

Dometic	(cooker, air conditioner, inverter, roof fan)	Homepage: Tel.:	www.dometic.de +49 (0)25 72 879-192
Truma	(heater, air conditioner)	Homepage: Tel.:	www.truma.com +49 (0)89 46 17-2020
Thetford	(fridge, toilet)	Homepage: Tel.:	www.thetford-europe.com +31 (0)76 50 422 00

Chapter Overview

In this chapter, you will find information on the topic wheels and tyres

The information affects, in detail:

- the general inspection
- the inflation pressure
- the tyre inflation pressure table

13 Wheels and tyres

13.1 General

- Check the tyres at regular intervals (every 14 days) for equal tread wear, tread depth and any damage.
- Tyres must not be older than 6 years as the material becomes brittle. The four digit DOT number on the edge of the tyre specifies the date of manufacture. The first figures designate the week, the last two figures the year of manufacture.
Example: **(1510)** Week 15, year of manufacture 2010.
- Observe the minimum tread depth specified by law.
- Always use tyres that have the same design, the same brand and the same model (summer tyres or winter tyres).
- Use only the tyres approved for the rim type. The permissible rim size and tyre size are listed in the vehicle documents of the motorhome. Your Malibu trade partner or the trade partner of the basic vehicle would be pleased to give you advice.
- Drive in the new tyres over a route of approx. 100 km at a moderate speed as their full adhesion is only given thereafter.



- In event of a damaged tyre, drive the motorhome onto the hard shoulder. Safeguard the motorhome using a warning triangle. Switch on your hazard warning lights.

13.2 Tyre inflation pressure



- Incorrect inflation pressure of the tyres leads to irregular wear and can lead to damage to the tyres up until it blowing.
For this reason, check the inflation pressure at regular intervals.
- Check the inflation pressure only when the tyres are cold.
- The maximum pressure specified on the tyres must not be exceeded.
- Use the documents of the tyre manufacturer to obtain the correct tyre inflation pressure.

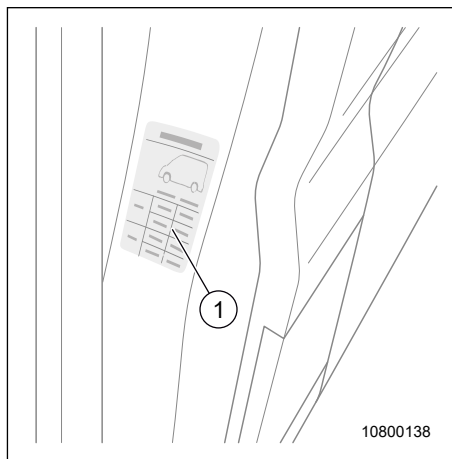


Fig. 79 Sticker position



- The inflation pressures can be obtained from a sticker (Fig. 79) on the vehicle.
- The sticker is located on the B-pillar

13.3 Tyre inflation pressure table

Tyre size	Tyre type	Load rating Load in- dex**	Inflation type	Inflation pressure										
				2.5 bar	3 bar	3.5 bar	4 bar	4.5 bar	4.75 bar	4.85 bar	5 bar	5.25 bar	5.5 bar	5.75 bar
215/70 R15 CP	Michelin Agilis Camping	109 Q	E	1230*	1430*	1610*	1790*	1970*	2060*					
225/65 R16 C	Continental Vanco Four Season	112/110 R	E		1550*	1760*	1950*	2150*	2150*	2200*	2240*			
225/65 R16 CP	Michelin Agilis Camping	112 Q	E	1350*	1550*	1750*	1950*	2140*	2170*	2190*	2200*	2240*		
235/65 R16 C	Continental Vanco Four Season	115/113 R	E		1680*	1900*	2120*	2300*						
195/75 R16 C	Continental Vanco Winter	110/108 R	E Zw		1360* 2560*	1540* 2890*	1710* 3220*	1880* 3540*	1950* 3700*	1990*	2040*	2100*		
195/75 R16 CP	Michelin Agilis Camping	107 Q	E Zw	1170* 2160*	1350* 2500*	1530* 2820*	1700* 3140*	1870* 3450*	1950* 3600*	1990* 3630*	2030* 3650*	2100* 3700*		
225/75 R16 C	Continental Vanco Four Season	118/116 R	E Zw		1690* 3200*	1910* 3620*	2130* 4020*	2340* 4420*	2440* 4620*	2490* 4690*	2550* 4810* 5000*		
225/75 R16 CP	Michelin Agilis Camping	116 Q	E Zw	1500* 2770*	1730* 3200*	1960* 3620*	2180* 4030*	3400* 4430*	2500* 4630*	2520* 4750*	2530* 4880*	2550* 5000*		
225/75 R16 C	Continental Vanco Four Season	121/120 R	E Zw		1730* 3330*	1950* 3770*	2170* 4190*	2390* 4610*	2500* 4810*	2540* 5000*	2600* 5240*	2700*	2800*	2900*

*Axle load

**Steel valves are required from 5.5 bar, recommend using steel valves from 5.0 bar.

E = Single tyres

Zw = Dual tyres

Tab. 10 Tyre inflation pressure table

Chapter Overview

In this chapter, you will find information on possible malfunctions of your Malibu box-type van.

The malfunctions are listed with their possible causes and suggestions for rectification.

The information affects, in detail:

- the brake system
- the electrical system
- the gas system
- the gas cooker
- the heater
- the boiler
- the fridge
- the water supply
- the main cabin

The malfunctions listed can be rectified by yourself in a few actions without having much professional knowledge.

If the remedies listed in this user manual do not lead to the rectification of the malfunction, have an authorised specialist workshop search for and eliminate the cause.

14 Malfunctions

14.1 Brake system





→ In interest of your own safety, have the brake system only repaired and adjusted by an authorised specialist workshop.

14.2 Electrical system




→ Replace a lead-gel battery only with a lead-gel battery.

Fault	Cause	Corrective action
Lighting system not fully functional	<ul style="list-style-type: none"> LED defective Fuse on the electric block defective 	<ul style="list-style-type: none"> Undo the housing cover of the light affected Replace the LED Observe the Volt and Watt specifications Replace the fuse on the electric block
The electric entrance step cannot be extracted / retracted Warning signal entrance step does not function	<ul style="list-style-type: none"> Fuse on the electric block defective Fuse D+ defective Alternator output too low 	<ul style="list-style-type: none"> Replace the fuse on the electric block Change fuse D+ Increase the idling speed
No 230 V mains current despite connection	<ul style="list-style-type: none"> 230 V circuit breaker or FI switch has tripped 	<ul style="list-style-type: none"> Switch on the 230 V circuit breaker or FI switch Visit the customer services / specialist workshop
Starter or supply battery is not charged during 230 V operation	<ul style="list-style-type: none"> Blade fuse (50 A) at starter battery or supply battery defective (FIAT) Charge module in the electric block defective 	<ul style="list-style-type: none"> Change the blade fuse (50 A) on the starter or living area battery Visit the customer services / specialist workshop
Living area battery is not being charged by the vehicle	<ul style="list-style-type: none"> Blade fuse (50 A) on the starter or supply battery defective Fuse D+ defective Defective isolating relay 	<ul style="list-style-type: none"> Change the blade fuse (50 A) on the starter or living area battery Change fuse D+ Visit the customer services / specialist workshop
12 V power supply does not function	<ul style="list-style-type: none"> 12 V main switch for the living area battery switched off Living area battery discharged Blade fuse (50 A) on the living area battery defective Isolating relay in the electric block defective 	<ul style="list-style-type: none"> Switch on the 12 V main switch Charge the living area battery Replace the blade fuse (50 A) on the living area battery With the Fiat Ducato, see the on-board manual of the vehicle manufacturer Visit the customer services

Fault	Cause	Corrective action
12 V power supply does not function in 230 V operation	<ul style="list-style-type: none"> • 230 V circuit breaker or FI switch has tripped • Blade fuse (50 A) on the living area battery defective • Charge module defective 	<ul style="list-style-type: none"> • Have the electrical installations checked by customer services • Replace the blade fuse (50 A) on the living area battery • Visit the customer services
The starter battery is discharged during operation	<ul style="list-style-type: none"> • Isolating relay in the electric block defective • Grounding fault 	<ul style="list-style-type: none"> • Visit the customer services
No voltage from the living area battery	<ul style="list-style-type: none"> • Living area battery discharged 	<ul style="list-style-type: none"> • Charge the living area battery immediately <div>  <p>→ In event of prolonged deep charging, the living area battery will be damaged irreparably.</p> </div> <div>  <p>→ In event of longer standing times of the Malibu box-type van, fully charge the living area battery beforehand.</p> </div>
Control Panel without function	<ul style="list-style-type: none"> • Fuse in the electric block defective 	<ul style="list-style-type: none"> • Replace the fuse in the electric block

14.3 Gas system

Fault	Cause	Corrective action
Gas odour, higher gas consumption	<ul style="list-style-type: none"> • Gas system leaking 	<div>  <p>Risk of explosion! Close the main shut-off valve on the gas bottle immediately. Open the windows and doors, and ventilate.</p> <p>→ Do not smoke!</p> <p>→ Do not ignite open flames.</p> <p>→ Do not operate any electric switches (starter, light switch, etc.)</p> </div> <ul style="list-style-type: none"> • Have the gas system checked by an authorised specialist workshop.

No gas	<ul style="list-style-type: none"> • Quick-connect valve closed • Main shut-off valve on the gas bottle is closed • Outdoor temperature too low (-42°C for propane gas, 0°C for butane gas) • Built-in appliance defective 	<ul style="list-style-type: none"> • Open the quick-connect valve • Open the main shut-off valve on the gas bottle • Wait for higher outside temperature or replace butane gas with propane gas • Visit the customer services / specialist workshop
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14.4 Cooking area

Fault	Cause	Corrective action
Ignition fuse does not operate (flame does not burn after the control knobs are released)	<ul style="list-style-type: none"> • Heat-up time is too short • Ignition fuse is defective 	<ul style="list-style-type: none"> • Keep control knob pressed for approx. 15 to 20 seconds after ignition. • Set the ignition safety valve correctly (do not bend!). The sensor tip should protrude by 5 mm beyond the burner. The sensor neck should not be more than 3 mm away from the burner ring. • If necessary, visit the customer services / specialist workshop
Flame extinguishes when being reduced to its minimum setting	<ul style="list-style-type: none"> • Ignition safety valve is not set correctly 	<ul style="list-style-type: none"> • Set the ignition safety valve correctly (do not bend!). The sensor tip should protrude by 5 mm beyond the burner. The sensor neck should not be more than 3 mm away from the burner ring. • If necessary, visit the customer services / specialist workshop

14.5 Heater/boiler, fridge



→ In event of a defect on the fridge or heater / boiler, contact the nearest customer service workshop of the respective appliance brand affected. The list of addresses is enclosed with the accompanying appliance documentation. Only authorised specialist personnel may repair the the fridge or heater / boiler.

14.5.1 Heater/boiler

Fault	Cause	Corrective action
Heater does not ignite, error message visible on the CP Plus display	<ul style="list-style-type: none"> • Lack of gas • Air in the gas line system • Defect of a safety element • Operating voltage too low (less than 11 V) • Loose electrical connections 	<ul style="list-style-type: none"> • Open the main shut-off valve and gas isolating valve • Connect a full gas bottle • Switch off the heater via the main switch. Switch on the heater after approx. 30 seconds. • Replace the safety element • Charge the living area battery or install a new battery • Secure the connections
Heater failure	<ul style="list-style-type: none"> • Heater defective 	<ul style="list-style-type: none"> • Contact Truma customer services (see chapter 12.8) • Obtain information from the enclosed documents of the heater manufacturer.



→ Further information with regard to the topic malfunctions can be found in the instructions of the heater manufacturer in this vehicle.

14.5.2 Fridge

Fault	Cause	Corrective action
Fridge does not switch on during 230 V operation	<ul style="list-style-type: none"> • 230 V circuit breaker or FI switch has tripped • No 230 V supply available • Battery voltage of 230 V too low 	<ul style="list-style-type: none"> • Switch on the 230 V circuit breaker or FI switch • Connect the 230 V supply • Have the 230 V voltage supply check by a specialist
The fridge does not switch on during 12 V operation	<ul style="list-style-type: none"> • Fridge fuse defective • Fuse D+ defective 	<ul style="list-style-type: none"> • Change the fridge fuse • Change fuse D+ • Visit the customer services. Obtain information from the enclosed documents of the fridge manufacturer.
The fridge does not switch on during gas operation	<ul style="list-style-type: none"> • Lack of gas 	<ul style="list-style-type: none"> • Check if the main or quick-connect valve are open • Connect a full gas bottle
With AES: the fridge does not switch on during gas operation	<ul style="list-style-type: none"> • Main shut-off valve or quick-connect valve closed 	<ul style="list-style-type: none"> • Open the main shut-off valve or quick-connect valve



→ Further information with regard to the topic malfunctions can be found in the instructions of the device manufacturer in this vehicle.

14.6 Water supply

Fault	Cause	Corrective action
No water	<ul style="list-style-type: none"> • Water tank is empty • Fuse for the pump is defective • Pump is defective • Kinked hose • Electric block defective 	<ul style="list-style-type: none"> • Fill with water • Replace the fuse on the electric block • Replace the pump / have the pump replaced • Route the hose straight, or replace • Visit the customer services
No water in the toilet for flushing	<ul style="list-style-type: none"> • Water tank is empty • Fuse defective 	<ul style="list-style-type: none"> • Fill with water • Change fuse • Check the battery voltage via the Control Panel
Indicator instrument for waste and water shows incorrect value	<ul style="list-style-type: none"> • Measuring probe in the waste-water or water tank dirty 	<ul style="list-style-type: none"> • Clean waste water / water tank • Clean measuring probe
The waste water tank cannot be emptied	<ul style="list-style-type: none"> • Valve or drain pipe blocked 	<ul style="list-style-type: none"> • Rinse the water drain in the opposite direction using the water hose.
Water tap leaking	<ul style="list-style-type: none"> • Damage by frost 	<ul style="list-style-type: none"> • Renew the cartridge in the water tap (Can be ordered from the Malibu trade partners)

14.7 Main cabin

Fault	Cause	Corrective action
Hatches / door hinges are difficult to operate	<ul style="list-style-type: none"> • Hatches / door hinges are not / insufficiently lubricated 	<ul style="list-style-type: none"> • Lubricate the hatch / door hinges with acid-free and resin-free grease
Hinges / joints in the bathroom / toilet are difficult to operate / make a grating noise	<ul style="list-style-type: none"> • Hinges / joints are not / insufficiently lubricated 	<ul style="list-style-type: none"> • Lubricate the hinges / joints with acid-free and resin-free oil
Storage compartment hinges are difficult to operate / make a grating noise	<ul style="list-style-type: none"> • Storage compartment hinges are not / insufficiently lubricated 	<ul style="list-style-type: none"> • Lubricate the storage compartment hinges with acid-free and resin-free synthetic oil
The main cabin door jams	<ul style="list-style-type: none"> • The lock striker plate is adjusted or loose 	<ul style="list-style-type: none"> • Set or adjust the lock striker plate First unlock the lock and then open the door



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