

! N.B.

- It is extremely important to read the user manual and the safety instructions before taking the Shelter into use.
- You should also read the suppliers' user instructions for the various pieces of equipment before using them.
- We reserve the right to make changes to models and constructions.

- Failure to have inspections carried out on time and to promptly forward the coupons will invalidate the guarantee. The inspection coupons are given at the back of this user manual. Be sure to have the inspections carried out on time by an authorised dealer and to forward the accompanying coupons within 10 days of the inspection being carried out to:

**Kip Caravan B.V.
PO BOX 89
NL-7900 AB HOOGEVEEN**

This manual covers the following models:

Shelter Basic

Shelter Plus

SHELTER
® BY KIP

CONTENTS

1.	PREPARING TO TRAVEL.....	2
1.1	General.....	2
1.2	Checks.....	3
1.3	Loading the Shelter.....	4
1.4	Connecting the Shelter.....	6
1.4.1	General.....	6
1.4.2	Standard coupling.....	6
1.4.3	Coupling with stabiliser.....	7
1.4.4	Pre-departure check.....	9
1.4.5	Sport packages	9
2.	DRIVING WITH THE SHELTER.....	10
2.1	General.....	10
2.2	Driving in the mountains.....	10
2.3	Disconnecting.....	10
2.3.1	General.....	10
2.3.2	AKS 1300.....	10
2.4	Positioning the Shelter at the camping site.....	11
3.	CONNECTING THE SHELTER AT THE CAMPING SITE.....	12
3.1	Operating the elevated roof.....	12
3.1.1	Opening the elevated roof.....	12
3.1.2	Closing the elevated roof.....	12
3.2	Power supply.....	13
3.2.1	230 Volt mains.....	13
3.2.2	Shelter battery (option).....	14
3.2.3	12 Volt Shelter mains.....	14
3.3	Gas system.....	14
3.4	Water.....	15
4.	OPERATING EQUIPMENT.....	15
4.1	Lighting.....	15
4.1.1	Switch on light fittings.....	15
4.2	Cooler box	15

4.3	Fridge (only with the Shelter Plus).....	15
4.3.1	General.....	15
4.3.2	Operation (gas operated fridge).....	16
4.3.3	Door lock.....	17
4.4	Heating.....	17
4.4.1	Whale heater (option)	17
4.4.2	Floor heating	18
4.5	Water supply.....	18
4.5.1	Taps	18
4.6	Cooking hob.....	18
4.7	Porta Potti (option).....	19
4.7.1	Emptying the waste tank.....	19
4.8	Setting up seats and beds.....	20
5.	CLEANING / MAINTENANCE.....	20
5.1	General.....	20
5.2	Cleaning.....	21
5.3	Polyester parts, aluminium plating.....	21
5.4	Windows, ABS parts, foil on the side walls	22
6.	WINTER STORAGE.....	22
6.1	General.....	22
6.2	Location requirements for winter storage.....	22
6.3	Power supply.....	22
6.4	Gas.....	23
6.5	Completely drain the entire water system.....	23
6.6	Refrigerator.....	23
7.	FLAT TIRES.....	23
8.	GUARANTEE CONDITIONS, EFFECTIVE AS OF 2015.....	25

1. PREPARING TO TRAVEL

1.1 GENERAL

Mandatory documents:

Before taking your Shelter on the road you must have the following documents in your possession:

1. A valid driving licence*;
 - The trailer must not weigh more than 750 kg in total (mass of empty vehicle + loading capacity), or
 - The trailer must not weigh more than 750 kg. This is subject to the condition that the maximum mass of the entire combination (towing vehicle and trailer) does not exceed 3500 kg.
 - The actual weight being towed may not exceed the vehicle's towing capacity. The towing capacity is given in the vehicle document.
 - In all other cases a Dutch BE or B+ driving licence is required.

The authorities in your own country will be able to tell you how this is arranged where you live.

2. The car driving licence;
the maximum mass of the Shelter may not exceed the maximum towing capacity of the car. (Please note: the maximum permissible mass of the Shelter can be increased to 900 kg.)
3. The Shelter vehicle registration document, if the maximum permissible maximum mass has been raised to 900 kg.

The car must be fitted with a tow bar approved by the RDW (Dutch National Vehicle Licence Registration Authority).

Have your car dealer fit the electrical wiring for the car lights. Make sure that a 13-pin plug socket (type Jaeger) and the prescribed wiring are installed in your car.

* See the CD-ROM (2-General)

N.B.

- The Shelter is not suitable for use with an indoor temperature in the Shelter lower than 0°C or higher than 45°C.
- The Shelter is designed for recreational use and is therefore unsuitable for permanent occupation.
- Children should be allowed in the Shelter only under adult supervision.
- Modifications and additions to the systems should be carried out only by recognised dealers using materials approved by KIP Caravan B.V.
- See the manuals supplied with the various pieces of equipment before taking them into use.
- Have a maintenance service carried out at least once a year in accordance with the BOVAG guidelines. This will make the Shelter safer and will increase its life cycle. Overdue maintenance can lead to serious defects (and high costs).
- The Shelter should only be occupied with the elevated roof open for ventilation.

The driver of the car towing the Shelter must have a clear view of both sides of the Shelter (figure 1.10). It will usually be necessary to fit extra wing mirrors to the car for this purpose. (This also depends on the width of the car, but we recommend using wing mirrors in all cases for extra safety.)

1.2 CHECKS

We advise you to carry out the following checks before going on the road with your Shelter:

- The overall condition of the Shelter. We advise you to do this in consultation with your KIP dealer.
- The correct operation of the various pieces of equipment.
- The interior lighting and the car lights. For the Shelter Plus, we advise you to take the removable spotlights out of the rail to prevent them from getting damaged. You can screw them back into the rail when you arrive at your destination.
- The gas system (if present).
- The tires, including the spare wheel (not supplied as standard). Take note of the age of the tire, the tread depth, the tire pressure and the tightening torque of the wheel nuts (steel wheel 90 Nm, aluminium wheel 140 Nm).
- Completeness of the luggage. We advise you to keep an inventory, not least to prevent your Shelter from being overloaded.

N.B.

- Regularly check the tire pressure and the state of the tires.
- Tires should be replaced if older than six years, irrespective of their condition.
- After changing the wheels the wheel nuts should be checked after about 50 km:
 - **The tightening torque for wheel nuts for steel wheels is 90 Nm.**
 - **The tightening torque for wheel nuts for aluminium wheels is 140 Nm.**
- If an aluminium wheel is replaced by the steel spare wheel, the separately supplied wheel nuts must be used instead of those for the aluminium wheel.
- If the tires are replaced use the same type of tire: 185/65/R14 86 T
- It is not permitted to grease wheel nuts before tightening them up.
- It is strictly prohibited to paint the brake drums, even with heat-resistant paint.

1.3 LOADING THE SHELTER

- Avoid overloading the Shelter. This could lead to dangerous situations on the road. The loading capacity of the Shelter must therefore not be exceeded.
- Place heavy objects above the Shelter axle if possible (fig. 1.01).
- Place light objects on the wall cabinets.
- Place loose objects that are to be placed on the floor of the Shelter in light boxes if possible. This will keep everything orderly and make it easier to find things.
- Check the ball pressure. Make sure that it is between 50 and 75 kg. Include the maximum ball pressure of the Shelter and the tow bar of your car in the calculation. If necessary, correct the ball pressure with the load.

- Regularly check the tire pressure. Consider filling your tires with nitrogen to limit pressure losses and the corrosion of steel wheels. The tire pressure recommendation is given on the sticker next to the mud guards. The tires are air-filled when supplied by Kip.

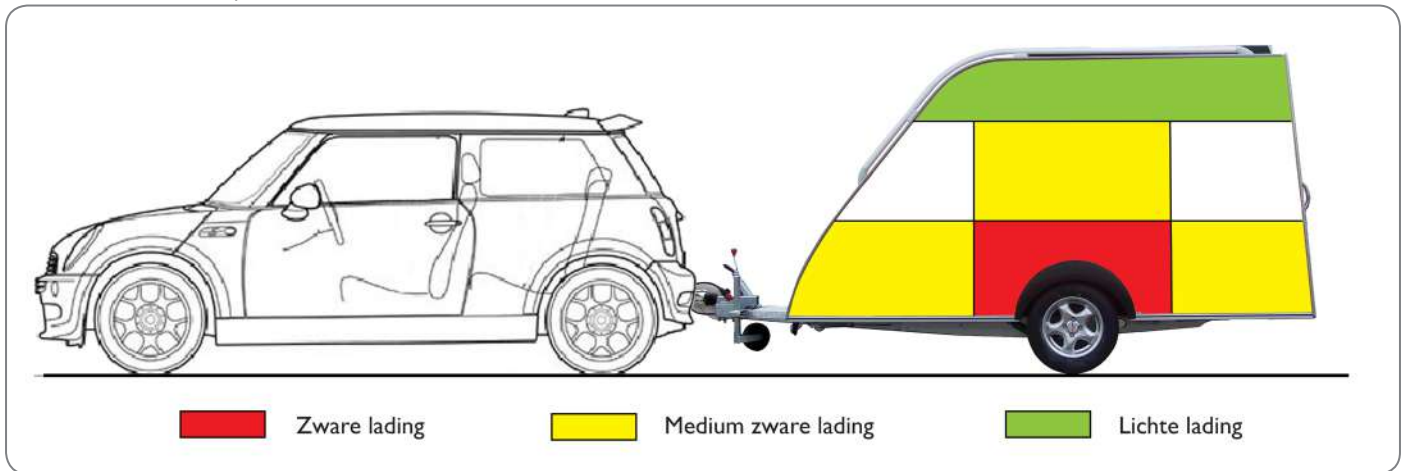


Figure 1.01

Shelter	Delivery weight (kg)	Loading capacity (kg)	Max. permitted mass (kg)	Loading capacity based on raised axle* (kg)	Max. permitted mass (with raised axle) (kg)
Shelter Basic	540	210	750	360	900
Shelter Plus	595	155	750	310	900



N.B.

If a bicycle rack is fitted to the drawbar of the Shelter (max. 2 bicycles, not exceeding a total weight of 40 kg), we recommend at all times fitting a stabiliser to compensate for the adverse effects of driving conditions.

- Always follow the manufacturer's instructions for fitting a bicycle rack.
- Roof rails (decorative brackets on the roof) must not be used as luggage rails.
- To be prepared for emergencies, the following items should be kept in an accessible place (also note the European regulations in this regard):
 - **First aid box**
 - **Danger triangle**
 - **High-visibility safety jackets (for the driver and passengers)**

1.4 CONNECTING THE SHELTER

1.4.1 GENERAL

1. Apply the handbrake.
2. Turn the Shelter's corner supports upwards (as far as possible) using the supplied turning handle.
3. Lift up the connector using the telescopic jockey wheel and place it above the ball.
4. Apply the Shelter parking brake (figure 1.02). The handbrake handle must be pulled forcefully over the dead centre (see indicated zone).

1.4.2 STANDARD COUPLING

1. Lower the coupling over the tow bar using the jockey wheel crank whilst pulling up the handle and then release the handle (figure 1.03; position B) when the coupling is resting on the ball. This should now slide back into the starting position on its own.

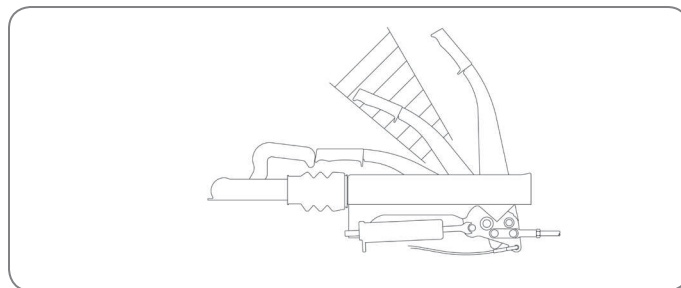


Figure 1.02

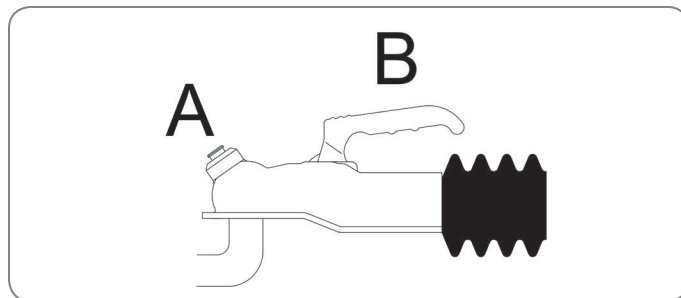


Figure 1.03



N.B.

The tow bar ball is correctly coupled if the green edge of the safety indicator (figure 1.03; A) is visible.

If the coupling has not been fastened properly, the Shelter may be released from the towing vehicle.

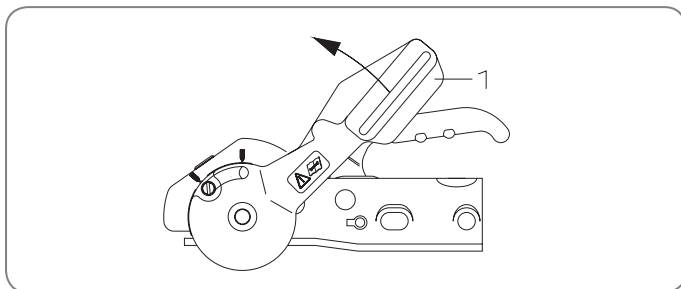


Figure 1.04

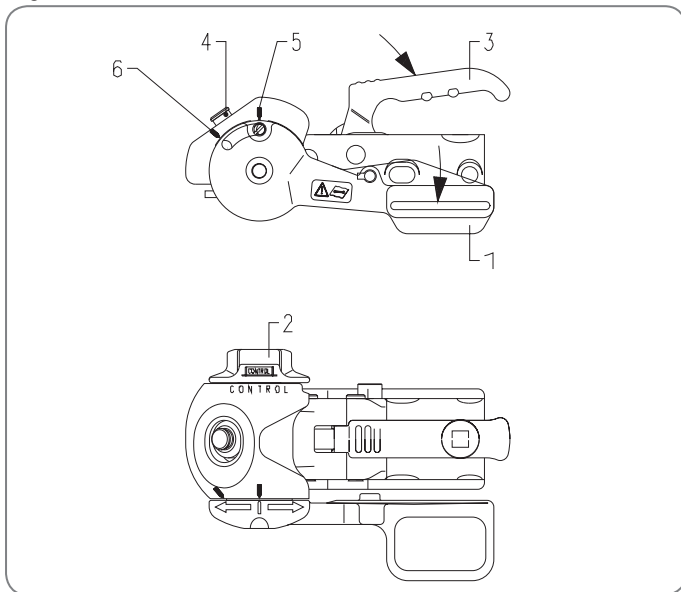


Figure 1.05

1.4.3 COUPLING WITH STABILISER

AKS 1300

1. Before connecting the stabiliser arm (figure 1.04 (1)) must be completely up (open) and the knob (figure 1.05 (2)) must be unscrewed to the stop (anticlockwise).
2. Pull the handle (3) up. Place the opened coupling on the ball of your vehicle. The handle must slide back independently and audibly into the starting position. The handle (3) can then be pushed down by hand. Locking and securing then follow automatically.
3. Turn the hand wheel (2) (clockwise) until the torque limiter of the hand wheel can be heard and felt rattling. Press the stabiliser handle (1) down until the mark on the handle (5) is in line with the mark on the stabiliser housing.

Explanation of figures 1.04 and 1.05

1. Stabiliser arm
2. Knob
3. Handle
4. Indicator
- 5-6. Indicator line

Jockey wheel

1. Place the jockey wheel in its highest position by screwing it upwards with the turning handle (1).
2. Now unscrew then lock (2) and move the jockey wheel completely up (3). Make sure that the wheel is pointing backwards.
3. Securely fasten the jockey wheel.
4. Check the clearance between the jockey wheel and the pull rod of the braking system.

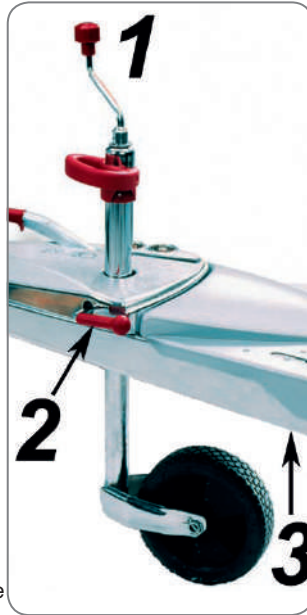


Figure 1.06

Power connector to the car

1. Connect the 13-pin plug (figure 1.08) to the car by inserting it in the socket (figure



Figure 1.07



Figure 1.08

- 1.07) and then turning it to the right.
2. Fit the breakaway cable to the dedicated mounting ring on the car (figure 1.09). This cable must never be connected to the tow bar ball, but to a ring fitted especially for this purpose. Check that the breakaway cable has enough play.

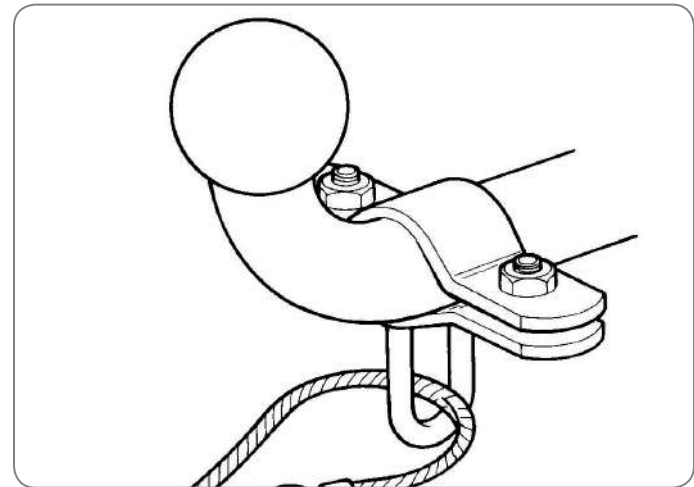


Figure 1.09

1.4.4 PRE-DEPARTURE CHECK

1. Check whether the gas supply has been shut off (see chapter 3).
2. Before driving off switch the fridge to the 12V supply. Carefully close and lock the fridge door (see section 4.2).
3. Close the windows, the elevated roof, the roof hatch and the Shelter door.
4. Adjust the car windows when the combination is in a straight line (figure 1.10).
5. Release the handbrake before moving off. The handbrake handle must be pulled forcefully over the dead centre (see indicated zone in figure 1.02) into the end position.
6. Check the handbrake and the lighting.
7. Check that all of the lights and electrically operated taps and pumps in the Shelter are switched off.

1.4.5 SPORT PACKAGES

Bicycle package:

If you have chosen the bicycle package option we recommend securing the bicycle handbrakes with belts (this applies both to the bicycle package on the drawbar and to the bicycle package in the Shelter). This will prevent the bicycles from moving backwards or forwards. The bicycles should also be secured with belt fasteners using the four mounting rings in the floor.

Motorcycle package:

Place extra protection under your motorcycle's back wheel to prevent damage being caused and marks being made on the floor. You can use belt fasteners attached to the four mounting rings in the floor to securely tighten your motorcycle in the Shelter.

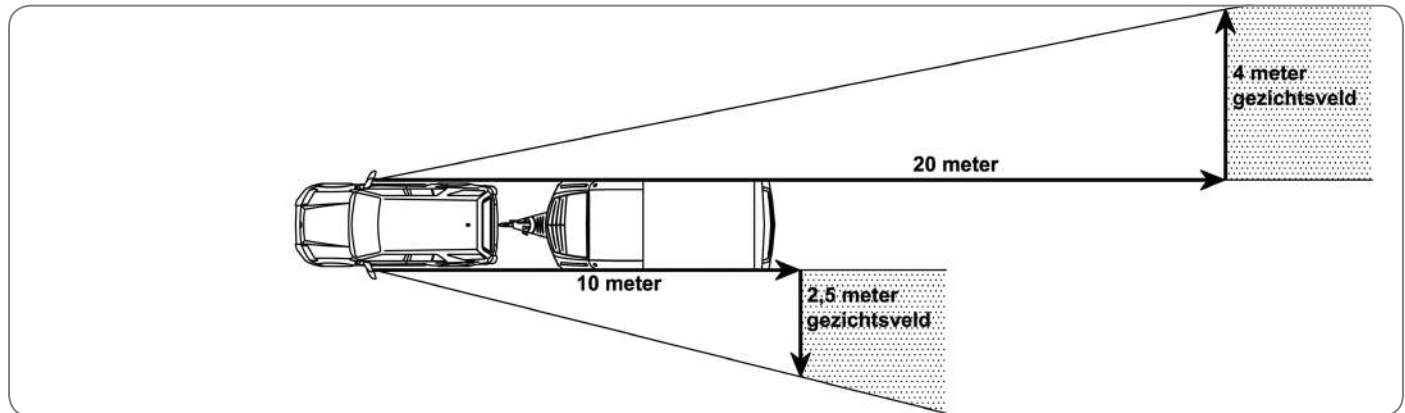


Figure 1.10

2. DRIVING WITH THE SHELTER

2.1 GENERAL

- The Shelter may be broader than a car, so bear in mind that you might need more space to overtake. (The total width of the Shelter is 185 cm).
- The increased length (car + Shelter) on the road and the reduced acceleration mean that you will need much more time and space to overtake than when driving without the Shelter.
- A Shelter tends to cut off bends slightly. You should bear this in mind particularly in small driveways and in sharp bends.
- Keep to the legal speed limit in the country in which you are travelling. Different countries operate different maximum speed limits.

2.2 DRIVING IN THE MOUNTAINS

- If the car loses power because of the gradient, you will need to change down to a lower gear.
- For safety reasons it is advisable to ascend at the same speed as you ascend.
- When descending the driver of the Shelter-car combination should select a gear that does away with the need to use the car brake during the descent.
- If the hill ascent controller is working properly the overrun brake will come into operation if the driver brakes. When the car brake is released the remaining upward pressure of the Shelter will often prevent the overrun brake from returning to its start

position. In these situations the Shelter will descend with the brake slipping. This could generate intense heat, rising to as much as 500 °C. Serious damage could be caused to the brake drums, including burnt brake linings, damaged bearings, tire blowout, and so on.

- If the speed has risen too high and the car brake has been on, it is advisable to stop the Shelter-car combination, after which the overrun brake will be deactivated when you drive off.
- During long descents it is advisable to find a place to stop every now and then to allow the brakes to cool down. Remember that when you stop the overrun brake will be released.

2.3 DISCONNECTING

2.3.1 GENERAL

1. Reverse the connection procedure to disconnect.
2. Take the 13-pin plug out of the car socket.
3. If the ball pressure is higher, the connector can be moved upwards with the aid of the jockey wheel.

2.3.2 AKS 1300

1. Pull the stabiliser handle (1) up until the mark on the stabiliser arm is in line with the mark (figure 1.05); (6) on the stabiliser housing (end stop of the stabiliser handle).
Turn the hand wheel (figure 1.05; (2)) open up to the stop (anticlockwise).
2. Open the stabiliser arm (3) and remove the AKS from the

towing vehicle.

2.4 POSITIONING THE SHELTER AT THE CAMPING SITE

- Position the Shelter using the handles or the mover.
- Place the Shelter horizontally
 1. Start by placing the Shelter horizontally along the width.
A jack can be used for this purpose. In extreme cases you can place chocks under one of the two wheels.
 2. Place the Shelter horizontally along its length using the jockey wheel.
 3. Now use the turning handle to move the Shelter supports down one by one until the supports reach the ground. On a soft foundation we advise you to place a plate (Bigfoot) under the supports in order to distribute the weight.
 4. Once all of the supports have been lowered, turn each support 1 more rotation downwards to make sure that the support is stable.

3. CONNECTING THE SHELTER AT THE CAMPING SITE

! N.B.

In order to prevent built-up of heat behind the (front) window, it is important that when the blinds are closed, enough ventilation is provided for. One can obtain this by not closing the blinds completely, but by leaving them open by a couple of centimetres or by securing the (front) window on the ventilation position. In the latter case, please beware of rainfall.

3.1 OPERATING THE ELEVATED ROOF

3.1.1 OPENING THE ELEVATED ROOF

- Undo the hooks at the front of the elevated roof on the inside.
- Turn the hook 90° and press it diagonally upwards (bearing hinge)
- Do the same at the back of the elevated roof.
- Press the roof up at the front.
- Do the same at the back of the elevated roof.
- The tightening cord in the middle of the elevated roof can be undone.

3.1.2 CLOSING THE ELEVATED ROOF

- Make sure that the cover strips for the ventilation openings and window are closed.
- The tightening cord in the middle of the elevated roof can be connected so that the elevated roof cloth falls inside when the roof is collapsed).
- Pull the elevated roof down at the front (against the raised edge at the front).
- Do the same at the back (not too quickly, otherwise the elevated roof will go back up at the front).
- Check outside that the roof is positioned correctly at the front.
- Then fasten the hooks at the front and back.



Figure 3.01



Figure 3.02



Figure 3.03

N.B.

- Check the correct operation of the earth leakage switch once a month by pressing its test button (figure 3.03).
- Check the following items before connecting the Shelter to the 230V mains:
 - **The 13-pin plug must be disconnected**
 - **The voltage, frequency and maximum current**
 - **The earth leakage switch must be off**
- Roll out the outdoor cable completely and insert the plug in the socket of the Shelter and then in the 230V connection point at the camping site.
- The maximum permissible length of the outdoor cable is 40 metres, with a diameter of 3 x 2.5 mm². Use neoprene cable H07RN-F (VDE or HAR approved).
- Only use the prescribed fuses. Using the wrong fuses could cause damage to equipment.

3.2 POWER SUPPLY

3.2.1 230 VOLT MAINS

A 230V system is fitted to the outside of the Shelter (fig. 3.01). This socket can be used to connect the Shelter circuit to the 230 V mains. First insert the CEE plug (fig. 3.02) into the connection point on the Shelter, and then in the socket at the camping site. Roll out the cable completely.

The earth leakage circuit breaker (figure 3.03) is located in the couch or the cupboard against the side wall close to the outside socket. After connecting the camping site mains, the earth leakage switch can be manually switched on (figure 3.03) so that the circuit is powered up.

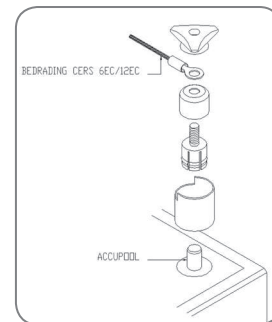


Figure 3.04

N.B.

- Use a battery that is geared to the power consumption.
- Also read the battery manufacturer's installation instructions before installing the battery!
- During periods in which the battery is the sole power source, limit the use of power to prevent the battery from draining.
- If a mover is used, the minimum capacity for a Shelter is up to 1360 kg 75Ah with 5 hours' discharging.
- Using a mover may reduce the battery's life span.
- Incorrectly connecting the mover wires to the battery terminals could cause sparks, with serious consequences.

3.2.2 SHELTER BATTERY (OPTION)

- When connecting the battery make sure that the plus and minus terminals are positioned correctly:
 - Red battery clip (large) on the plus terminal of the battery.
 - Green battery clip (small) on the minus terminal of the battery.
- Fasten the battery clips as shown in figure 3.04. Make sure that the fuse holder is just outside of the battery housing.
- Turn off all 12 Volt equipment before connecting the caravan battery.
- Always disconnect the minus terminal when the Shelter is not in use.



Figure 3.05



Figure 3.06

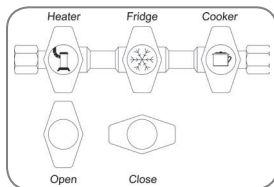


Figure 3.07

3.2.3 12 VOLT SHELTER MAINS

The R20 power supply delivers 12 Volts to the Shelter (option with the Shelter Basic). The power source for this equipment is the 230V circuit in the Shelter or the car connector when the Shelter is connected. If one of the two power sources is connected the power

supply will activate within a few seconds. The LED on the unit will light up.

3.3 GAS SYSTEM

- You can use two types of gas in the Shelter: butane or propane. Your Kip dealer will be able to tell you which gas cylinders are most suitable for the Shelter (use propane in cold conditions; this gas remains liquid up to -44 °C while butane is no longer liquid under 5 °C.)
- The gas cylinders are located in the drawbar compartment

! N.B.

- Always use the pressure regulator (30m Bar) that is supplied as standard. This will adapt the pressure of the gas perfectly to the equipment installed in the Shelter. The pressure regulator must be replaced after 10 years.
- It is not permitted to use car gas for the various gas devices.
- Never use a gas device when refuelling the car or if the Shelter is in an enclosed space.
- There is a ventilation hole in the drawbar cabinet of the Shelter. The purpose of this is to allow the gas to be released in the event of a gas leak (gas is heavier than air). Never cover this opening.
- Permanent ventilation openings such as the ventilation opening under the couch or under the bed and the permanent ventilation in the roof hatches of the Shelter must never be closed.
- Use an approved gas hose.
- Replace the hose once every 4 years.

and can be reached via the drawbar compartment door (figure 3.05).

- The gas cylinders must always be kept upright.
- The gas distributor block is located in the kitchen unit.
- The gas supply can be closed for each section using the knobs (figures 3.06 and 3.07).

3.4 WATER

- The water supply (option with the Shelter Basic) to the kitchen section runs from the water tank in the drawbar cabinet of the Shelter.
- The water tank contains an electric submersible pump that is supplied via the 12 V Shelter circuit and will operate when the hot water tap is turned on.

N.B.

- The water system is not suitable for direct connection to the water mains at the camping site.
- Make sure that the taps are always kept tightly closed when not being used.
- Never leave the pump running with an empty water tank, otherwise it will overheat.
- Keep the tank and the water pipes in the Shelter clean at all times.
- Periodically clean the water pipes with products intended for that purpose.
- Do not use products containing chlorine to clean the water system as this could harm the water pipes.

4. OPERATING EQUIPMENT

4.1 LIGHTING

Switching all lighting in the Shelter on and off.

Switching the tent lamp (option with the Shelter Basic) on and off.

4.1.1 SWITCH ON LIGHT TTINGS

The lights that are not operated centrally, such as the spotlights in the rail in the Shelter Plus) have their own switch.

4.2 COOLER BOX

If you take a cooler box with you in the Shelter Basic it can only be used with electrical power. **NB:** The cooler box cannot be gas operated for safety reasons.

4.3 FRIDGE (ONLY WITH THE SHELTER PLUS)

4.3.1 GENERAL

- The fridge can run on 230V, 12V and on gas.
- If gas is used, only liquid gas can be used (propane or butane).
- NEVER use more than 1 power source simultaneously (12 V or 230 V or gas).
- When travelling close the fridge with its catch and place the door ajar when the Shelter is put in storage.
- Keep the Shelter perfectly level if possible when the fridge is being used.

The type of fridge fitted in the Shelter is shown below:

	Refrigerator - Dometic
Kip Shelter	RM 5310

A diagram showing the proper operation of the fridge is given in a chart below:

Outdoor temperature in °C	Fridge position/setting
-10	5 - 7
-5	4 - 5
0	4
5	3 - 4
10	3
15	2 - 3
20	2
25	1 - 2
30	1

- When buying a new car always check the operation of the fridge in case any changes to the connection need to be made.
- For Kip Caravan, the mass connection has been changed from pin 12 to pin 11 since 2006.

4.3.2 OPERATION (GAS OPERATED FRIDGE)

RM 5310

Switch A Selection switch for power source

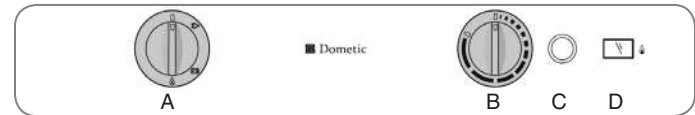


figure 4.01



230 Volt



12 Volt: the car engine must be running



Gas



Deactivated

1. Set the power selection switch (fig. 4.01: A) to gas.
2. Turn the thermostat regulator (fig. 4.01: B) to the right and press it in. Hold the regulator pressed in.
3. Now press the button (fig. 4.01: C) on the battery ignition and hold it in. The ignition takes place automatically.
4. The indicator on the galvanometer (fig. 4.01: D) moves to the green section when the flame is ignited. The fridge is now switched on. Hold in the knob (2) for approximately another 15 seconds and then release it.

Knob B: Thermostat knob for gas and electrical cooling.
 This knob is used to set the temperature of the main compartment.

4.3.3 DOOR LOCK

To open the door turn the lock (fig. 4.02: 1) sideways and pull the door open.

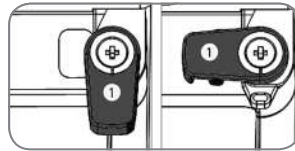


Figure 4.02

4.4 HEATING

4.4.1 WHALE HEATER (OPTION)

See for an explanation of the table figure 4.05 below.

A	gas setting - Green LED	If this light is on, the heating is working on gas
B	Indicator - red LED	This light will flash if the heater does not come on owing to a defect. Under normal conditions this light will stay off.
1	2000W	Boost - electrical heating setting
2	1000W	electrical setting interim heat exchanger
3	500W	Quiet/night time electrical setting
4	Off	heating in off position
5	Fan only	Air circulation setting, no heat output
6	Gas function	Gas settings only
7	Thermostat	use this to change the temperature in the fan when the heating is on.
8	Temperature sensor	Note: this is not an LED and does not light up.
9	Low heat level	Freeze protection settings

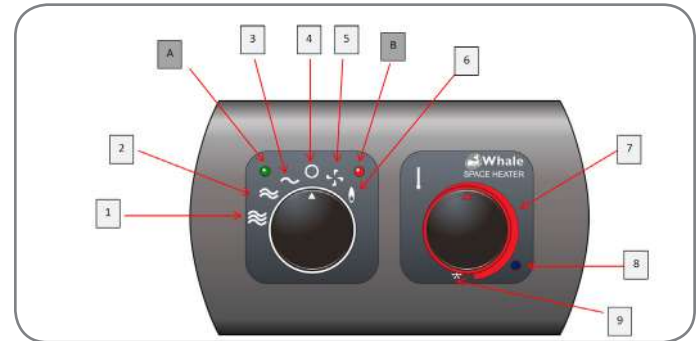


figure 4.03

NB:

- If it works on gas the green LED will come on to show that the gas is burning safely.
- If it is working on electricity, the fan will turn and generate heat, but the LEDs will not light up.

4.4.2 FLOOR HEATING

(Ecoflex 42/48V low-voltage) (fig. 4.04)

Floor heating is available as an option for the Shelter Basic. Your dealer will be able to inform you about this. The floor heating can be switched on using a switch with an LED indicator fitted in the side panel of the cupboard. The



figure 4.04

floor heating is not regulated with a thermostat.

4.5 WATER SUPPLY

4.5.1 TAPS

1. The taps are operated with the handle on the side or top of the armature. The submersible pump in the jerry can is activated when the handle of the armature is opened.
2. The handle switches the submersible pump on or off and is not designed to regulate the water pressure.



Figure 4.05

4.6 COOKING HOB

1. Turn the knob of the burner you want to use clockwise from the zero position, into the position "big flame" or "small flame". Press the knob and hold it in.
2. Now light the burner immediately using a gas lighter.
3. Once the burner is on, release the knob after about 15 seconds.
4. Place the knob in the desired burner position.
5. As soon as the burner is lit correctly, place the pan (recommended pan diameter: 16 to 20 cm) on the burner.
6. Make sure that the pan is in the middle of the grid of the burner so that the flames do not go up the sides of the pan.



N.B.

Avoid perforations caused by sharp objects (such as screws) or drilling in the walking area of the Shelter. Do not switch on the floor heating if large, heavy objects (such as an awning) are put on the floor for long periods of time. This has to do with the development of heat between the object and the floor covering.

The button to reset the automatic thermal safeguard is placed on the transformer. Once the transformer has cooled down, the system can be switched back on by pressing the button.



Figure 4.06



N.B.

- The gas cooker must not be used if:
 - 1. the ventilation openings are closed**
 - 2. the Shelter is in an enclosed space**
 - 3. the car is being refuelled.**
- Make sure that there are no inflammable materials near the cooking hob and the heater.
- Do not ignite the burners if you cannot see them: they must not be hidden from sight by a pan, for example.
- Make sure that there is sufficient ventilation when cooking. The windows must at least be in ventilation position and the roller blinds should be open.
- Never carry out repairs on the gas cooker yourself.

4.7 PORTA POTTI (OPTION)

The Porta Potti can be placed in the low right-hand cupboard.

The toilet comes in two sections: the top section is a combined flushing water tank and toilet bowl with a removable toilet seat and a removable cover. The lower section is the waste tank.

- The two sections are easy to fit and disconnect using the locking knob on the back of the toilet.
- You can add the right quantity of sanitation products to the waste tank using the spout.
- Water and flushing water liquid can be poured into the rinsing water tank at the top right.
- The Porta Potti Qubes are fitted with a level indicator so that you are given an early warning when the waste tank needs emptying.

4.7.1 EMPTYING THE WASTE TANK

The Porta Potti Qube is equipped with a rotating spout to make it as easy as possible to empty the tank. There is no need to disconnect or clean individual parts. The ventilation knob on the waste tank prevents splattering when it is emptied. The stop in the waste tank holds the spout in the right position so that the two tanks can be connected very easily to each other.

4.8 SETTING UP SEATS AND BEDS

The seats can be converted into full beds. The placing of the cushions in the two situations is explained in this section. For the sleeping position, the following parts that can be placed on the support frames are used:

- Table
- Wooden chocks

We recommend placing the table between the two chocks.

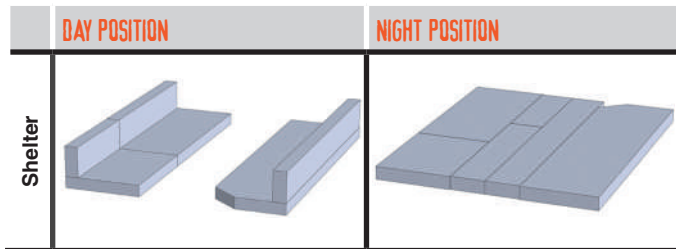


figure 4.07

5. CLEANING / MAINTENANCE

5.1 GENERAL

- Regularly check the tire pressure. Consider filling your tires with nitrogen to limit pressure losses and the corrosion of steel wheels. The required tire pressure is given on the sticker next to the mud guards.
- Check the condition of the tires. Under normal conditions the tires will generally have a life span of 6 years. This also depends on the number of kilometres driven. The tires should be replaced in good time.
- Check that the wheel nuts are still securely tightened after about 50 km, and after services and repairs. The bolts of steel wheels must be tightened to 90 Nm. This is 140 Nm for aluminium wheels.
- Cleaning after transport in the winter period. The salt and other products sprayed onto the roads in the winter have a caustic effect on the surface of the Shelter parts. The thermally galvanised undercarriage and the superstructure must be sprayed clean immediately following transport in the winter. Claims invoking corrosion as a result of the above will not be accepted.
- The Shelter must always be cleaned before being placed in winter storage and the need for cleaning in the intervening period does of course depend very much on the usage conditions.
- Do not let the surface stay dirty for too long as certain substances may have a detrimental effect on the colour and/

or gloss. These substances include bird droppings, certain berries, salt deposits in coastal areas, strong air pollution, etc.

5.2 CLEANING

- Rinse the polyester or acryl coated plating with warm water.
- Then clean the paint surface with a suitable cleaning agent and a brush.
- Rinse the cleaned paint surface with clean water.
- It may be desirable to dry the Shelter down with a chamois leather, a soft cloth or a jet of air to prevent water stains.
- Tar deposits, resin and other strong organic deposits can be removed using a cleaning agent provided by the dealer. We strongly advise against using more aggressive solvents such as products containing ester or ketone.
- To remove insect deposits you should first soak the deposits and then remove them with a sponge wrapped in a nylon stocking. Good results can also be obtained with a microfiber cloth.
- Parts that are concealed from view, such as the roof plating, should also be cleaned.
- Alloy wheels should be cleaned regularly with soap.

5.3 POLYESTER PARTS, ALUMINIUM PLATING

- Regularly check the coating of the aluminium plating. Carefully examine localised defects (scratches) because they could cause deterioration or corrosion. (Minor defects and imperfections can be repaired. Ask your dealer about the conditions).
 - To achieve the maximum life cycle of coated materials it is important to regularly remove dirt (which is not removed by rain).
 - We strongly recommend thoroughly cleaning the Shelter once a year (by hand using a soft brush). Ask your dealer about the correct cleaning agents.
 - Maintenance on the pre-coated polyester fixed roof and the drawbar compartment door is generally limited to cleaning and applying wax for protection.
 - Surface protection for aluminium plating
 - Use liquid wax for this purpose.
There are plenty of products available in the shops for waxing paint surfaces. These products should be used in accordance with the manufacturer's instructions.
- Polishing:
We advise against treating the paint surface with cleaner/polishing paste.

When washing the Shelter you should avoid directing a powerful stream at the elevated roof with a garden hose or high pressure sprayer.

5.4 WINDOWS, ABS PARTS, FOIL ON THE SIDE WALLS

The following parts have a slightly softer surface than the paint layer on aluminium plating:

- The Shelter's windows are made of acryl.
- The walls and roof of the Kip Shelter are in some cases covered with a foil.

Never clean these parts with a dry cloth or a hard brush. This could cause scratching. Never wash the parts with methylated spirits, but with shampoo without wax.

5.5 CLEANING EQUIPMENT

For the method for cleaning equipment we refer you to the user manuals supplied.

6. WINTER STORAGE

6.1 GENERAL

- Cleaning the Shelter
- Waxing the Shelter

If the Shelter is being placed in winter storage or will not be used for a while, we advise always leaving the roller blinds open. This reduces the tension on the springs so that the roller springs will last for longer.

6.2 LOCATION REQUIREMENTS FOR WINTER STORAGE

Your Shelter will have a lot to put up with if left exposed in the winter. This could eventually lead to leakage and the structure being compromised. Placing the Shelter under a carport is a good and inexpensive winter storage method. The fact that the wind blows through is sooner good than bad because it keeps the Shelter dry. Make sure that the Shelter is always well ventilated during winter storage.

6.3 POWER SUPPLY

- Switch off all power sources (lighting, refrigerator).
- Switch off the earth leakage switch.
- Disconnect the battery (if applicable).
 - Store the battery in a place where it is protected from freezing.
 - Charge the battery once a month during this period. Check the battery fluid level if applicable. Top up as required.
 - We advise you to maintain the charge in the battery with a trickle charger during the winter period.

6.4 GAS

- Connect the gas taps in the kitchen unit.
- Close gas valve in the drawbar compartment and disconnect the gas hose.
- Place the gas cylinder in a safe place.

6.5 COMPLETELY DRAIN THE ENTIRE WATER SYSTEM

- Drain the water system, including the boiler
- The Shelter must be kept horizontal
- Open all water taps in the middle position.
- Open the drainage tap of the water system
- After draining, leave the drainage taps open.
- Blow through the pipes from the pump.

6.6 REFRIGERATOR

- Set the power switch to off ("uit")
- Thoroughly clean the fridge and the freezer compartment.
- Leave the door ajar to prevent mould from forming in the fridge.
- Place the covers on the fridge grid.

7. FLAT TIRES

If you get a flat tire whilst travelling it will usually take a while before you notice it, by which time a fair amount of damage will have been caused. In that case a repair will not usually be possible. If your Shelter was supplied with a spare wheel, the procedure is as follows:

If the Shelter is not connected to the car:

- Apply the Shelter handbrake.
- Unscrew the supports on the side on which the wheel is not being changed/put on. Until the wheel being changed comes off the ground.

If the Shelter is connected to the car:

- If possible, pull into the hard shoulder or stop at the roadside.
- Apply the handbrakes of the car and the Shelter.
- Put the high-visibility safety jacket on.
- Place a red warning triangle on the side of the road at least a hundred meters behind the Shelter.
- Loosen the wheel nuts of the wheel being changed to the point where they can be undone by hand once the Shelter has been jacked up.
- Place the wheel chocks in front of and behind the wheel not being changed.
- Place the jack in the jack support holder of the wheel being changed (figure 7.01). If the Shelter is not equipped with a jack support holder, the jack must be placed under the chassis bar near the wheel being changed.
- Place the jack straight under the Shelter and jack the

Shelter up.

- If the spare wheel is kept under the Shelter, pull the spare wheel holder (figure 7.02) towards yourself and downwards. The (optional) spare wheel for the Shelter is kept in the drawbar compartment.
- Take the spare wheel out of the holder. Remove the bolts from the wheel with the flat tire by hand and take the wheel off the axle. Position the spare wheel and tighten the wheel nuts by hand, working crosswise (don't forget to place the hub cap, if applicable).
- Place the replaced wheel in the spare wheel holder and secure it.
- Lower the jack and remove it. Properly tighten the wheel

nuts with the torque wrench. For steel wheels tighten to 90 Nm. If aluminium wheels have been fitted, tighten to 140 Nm.

- Remember to put away all of the tools and the wheel chocks.
- Collect your warning triangle and put it back in its place. Have the replaced wheel repaired at a garage or replaced as soon as possible.
- If it is not possible to use a nitrogen tire filling, top it up with compressed air and have it refilled during the next maintenance service.
- Release the handbrakes of the Shelter and the car before driving off.

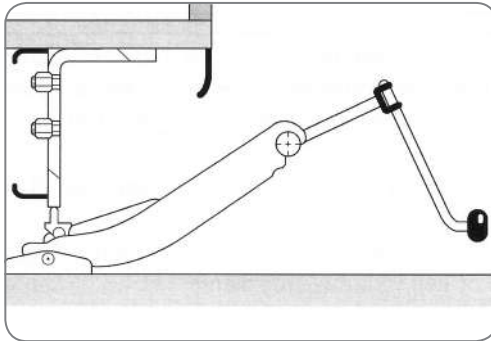


Figure 7.01

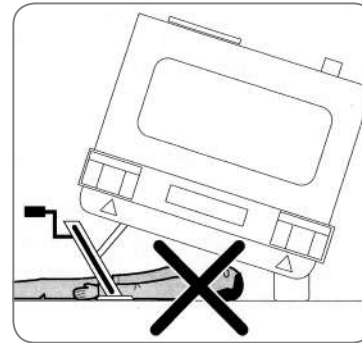


Figure 7.02