



# **USER GUIDE**

**Nomad 2020** 

**INDIE CAMPERS** 



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#### 1. SAFETY INSTRUCTIONS

The campervan is fitted with a gas cooker. This gas-fired appliance operates with propane or butane or a mixture of these two LPG types gas bottles. The gas locker is designed for holding two 2.75kg or 7.5kg gas bottles (Camping Gaz or equivalent).



### **DANGER!**

- When refuelling the campervan, make sure all gas-fired appliances in the living area of the campervan are turned off. Explosion hazard!
- If you smell gas or suspect a gas leak, immediately take the following measures: Close the shut-off valve on the gas cylinder!
- Avoid ignition sources and naked flames. Smoking inside the campervan is strictly forbidden!
- When using the gas cooker, you must open either a roof light, a window or the doors!
- The campervan must never be heated with radiant heaters and other appliances that take their combustion air from the interior of the campervan!
- To ensure a continuous flow of air in the caravan, the forced air vents in the roof lights and in the floor plate in the kitchen area must never be covered!
- The gas locker must be hermetically sealed from the interior of the campervan and there must be a ventilation opening of at least 100 cm2 on or immediately above the floor which must never be covered!
- Gas bottles must be kept in the gas locker only, where they must be held upright and strapped to prevent them twisting around!
- Do not store electrical devices (e.g. batteries) and/or devices which form a source of ignition in the gas locker!
- Appliances which run on gas must not be used while refuelling or in a garage!
- Operate the gas system only with propane, butane or a mix of the two gas types!
- When driving, close the gas bottle shut-off valve and disconnect the gas regulator from the gas bottle!
- Close the associated gas shut-off valve for gas appliances which are not in use!
- Never leave children unattended in the campervan!
- Keep flammable materials such as curtains, wardrobe and front panels made of fabric away from heating and cooking appliances and lamps!
- Never use portable heating or cooking appliances!



#### 2. CONTROL PANEL

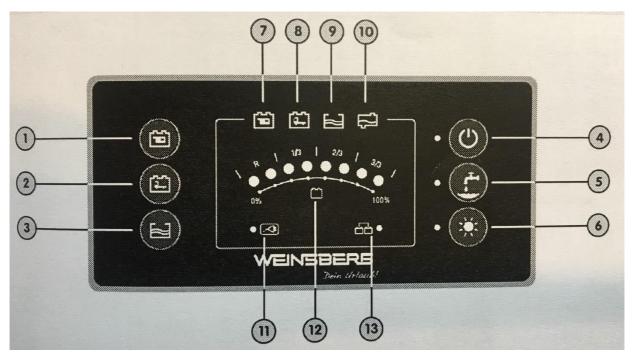


Fig. 1 - PC110 control and switch board

- 1. Button "Charging status Backup battery" indicator
- 2. Button "Charging status Starter battery" indicator
- 3. LED row "Fresh water tank level"
- 4. Switch ON/OFF "Appliances main switch" (if blinking means that battery is discharged)
- 5. Switch ON/OFF "Water pump"
- 6. Switch ON/OFF "Outside lights"
- 7. If symbol blinks, means that Backup battery is discharged
- 8. If symbol blinks, means that Starter battery is discharged
- 9. If symbol blinks, means that fresh water tank is empty
- 10. If symbol blinks, means that waste water tank is full
- 11. Indicator light "230 Volt mains connected" (when outside cable connected in camping)
- 12. LED display: Monitoring voltage for battery level / Fresh water tank level
- 13. Indicator light "Alternator charging the starter and backup batteries" (when campervan is driving)

### 3. BACKUP BATTERY / CHARGING / 12V

Your campervan is equipped with two batteries, one starter battery and one backup battery, providing a 12-volt power supply by backup battery and charger.

### 3.1. Backup Battery

The backup battery is located under the rear bed. Activate the appropriate button (Fig. 1, item 2 or 1) to show the charging state of the starter battery or backup battery on the control panel.



### 3.2. Charging the batteries

Connect to the 230 Volt mains, using the provided external cable. Main switch (Fig. 1, item 4) must be switched on in this case.

Switch off all electrical appliances while charging to achieve a rapid and optimum charge. Charging state of the backup battery should be checked on the LED display by activating the appropriate button (Fig. 1, item 1) and the LED row (Fig. 1, item 12) on the control panel.

After connecting to the 230 Volt mains, activate the button again and observe the LED display for the backup battery. The LED display must now light in the green area towards 13 Volt. The charger is working correctly when this is the case. If the LED display does not change, the charger is not charging properly. Check to find the cause, e.g. charger with button in OFF position or damaged fuses 2 A, 30 A and 50 A in the battery box.



#### NOTE!

Power is also drained from the backup battery, even when the appliances are switched off. To avoid draining/damage to the backup battery, the charge state should always be checked.

When not in use, the complete 12 Volt system can be switched OFF with main switch (Fig. 1, item 4) on the control panel. The 12 Volt unit is not in operation when the green light to the left of the power button does not go on. The electrical supply to the refrigerator, when in 12 Volt operation and to the heating is however maintained.

### 3.3. Battery charger

The charger is installed under the rear lower bed and has one output for the backup battery (battery II). The charger starts as soon as it is connected to the 230 Volt supply and button (Fig. 2) must light on. If this is not the case, press the button inwards.

When the backup battery reaches its full charge, the charger will start to charge the motor battery.



Fig. 2 - Battery charger



#### 4. FUSE PANEL

The electrical appliances in the living area connected to the 12 Volt power supply are protected by separate wire fuses in a distribution box (Fig. 3). The electrical unit is installed under the rear lower bed, next to the battery charger.



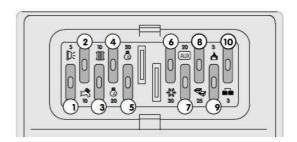


Fig. 3 - Fuse panel

- 1. 5A fuse to give power to the waste water tank heating, it depends on the main switch and it switches automatically off when the engine is started.
- 2. 10A fuse to give power to the water pump, it depends on the main switch.
- 3. 10A fuse to give power to the heating/boiler, it depends on the lights main switch.
- 4. 20A fuse to give power to the lights group "A", it depends on the main switch.
- 5. 20A fuse to give power to the lights group "B", it depends on the main switch.
- 6. 30A fuse to give power to 12V AES or 3-way function fridge.
- 7. 20A fuse for the auxiliary power supply, which is directly connected to the backup (B2) battery.
- 8. 25A fuse for the electrical step power supply, connected directly to the backup (B2) battery.
- 9. 3A fuse for the gas power supply (kitchen), Connected directly to the backup (B2) battery.
- 10. 3A fuse for OUT D+ simulated exit protection.



#### 5. GAS SYSTEM

### 5.1. Exchanging Gas bottle



# **CAUTION!**

When driving, always close the gas supply in the bottle shut-off valve and disconnect the gas regulator from the gas bottle.

- 1. Close the gas bottle shut-off valve (Fig.4.2 item 1)
- 2. Unscrew the connecting piece with gas regulator (Fig.4.2, item 2) from the gas bottle by hand (caution: left-hand thread).
- 3. Undo fastening strap (Fig.4.1, item 3) and take the empty gas bottle out of the gas locker.
- 4. Protect the empty gas bottle with the threaded cap and a protective cap.
- 5. Store the empty gas bottle in a suitable place. Never leave the gas bottle unsecured.
- 6. Place the full gas bottle in the mounting in the gas locker and secure it with the fastening strap (Fig. 4.1, item 3).
- 7. Screw the connecting piece with gas regulator (Fig.4.2, item 2) from the gas bottle by hand (caution: left-hand thread).
- 8. Open the gas bottle shut-off valve (Fig. 4.2, item 1).





Fig. 4.1 - Gas cylinder installation



### **NOTE!**

At altitudes exceeding 1,000 m, malfunctions may occur when igniting gas for reasons of physics. This however does not mean that the appliance is not functioning properly.

For winter camping, gas with as much propane as possible should be used, as butane no longer converts to the gaseous state below 0°C. This means that the Gas System of the vehicle (gas stove, air heating, water boiler) will not work if outside temperatures are below 0°C.

# 5.2. Appliance Gas shut-off valves

Gas is used for the kitchen cooker, water boiler and air heating system. If not in use, make sure to close the appropriate appliance shut-off valve located under the rear seat, on the side.



Fig. 5 – Shut-off valves



#### 5.3. Gas cooker



### **DANGER!**

- To ensure a continuous flow of air in the caravan, the forced air vents in the roof lights, mushroom vents and in the floor plate in the kitchen area must never be covered!
- When using the cooker, you must also open a window or roof light to ensure an adequate supply of oxygen to the interior of your motorhome!
- The gas cooker should never be used as a heater!
- Risk of explosion! Never allow unburned gas to flow out!
- The user must be able to keep the gas ignition process in full view this must not be concealed by pots etc.!
- The stove glass cover must be lifted whenever the cooker is in use. Closing it while stove grids are still warm will likely lead to glass break of the cover!

#### Using the gas cooker:

- 1. Open the gas bottle shut-off valve (Fig.4.2, item 1) and the corresponding appliance shut-off valve (Fig.5) on the valve block.
- 2. Lift up the glass cover on the hob.
- 3. To light the burner, turn the respective control knob in the recess in the hob anti-clockwise to the small or large flame, push and hold down.
- 4. Do NOT bring down the hob glass cover after using the stove. Let the stove grids cool down before closing the glass cover. Closing while grids are hot will most likely lead to glass break.

### 6. HEATING / HOT WATER SYSTEM

The campervan is fitted with a Truma Combi D6E air heater with an integrated hot water system (10 litre volume). The burner is fan-assisted, which ensures that operation is problem-free. In heating and hot water mode the heater can be used to heat the room and heat water up at the same time. If only hot water is required, select hot water mode. Requiring gas usage for these systems implies the vehicle to be parked.



### **NOTE!**

At a temperature of approximately 3 °C at the automatic FrostControl safety/drain valve, the valve will open and drain the fresh water tank, entirely, therefore the vehicle will no longer store any water.

Make sure the drain valve is in **CLOSED** position before refilling the fresh water tank and use water in the campervan. The drain valve is located under the rear seat and it is **positioned backwards**, meaning the blue round button is not visible, but it is accessible by hand.

The TRUMA boiler operates AUTOMATICALLY in:

- Gas mode only for autonomous use when van is stopped and not connected to 230 Volt cable;
- Electric mode only with 230 V for stationary use on camp sites



Fig. 6.1 -Anti-Frost drain valve





Fig. 6.2 - Anti-Frost drain valve location, positioned backwards behind black bar

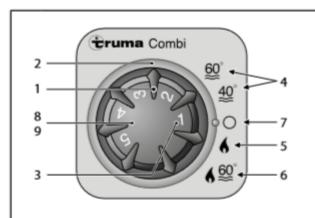


To operate the water / air heater devices, make sure the rear side driver window is closed and secured, so that the window sensor is activated. The TRUMA heater will not start if the sensor is not activated.

Exhaust fumes are dangerous, and this is to prevent them from going in to the campervan living space



### 6.1. Control panel TRUMA heating / hot water



- 1 Rotary knob room temperature, continuously adjustable, step 1 – 5 (illuminated by green "Operating" LED)
- 2 Mode control switch
- 3 Green "Operating" LED
- 4 Summer mode "On" (water temperature 40 °C or 60 °C)
- 5 Winter mode "On" (heating without hot water)
- 6 Winter mode "On" (heating with hot water)
- 7 Switch position "Off"
- 8 Yellow LED "Boiler heating phase" (goes off when the preset water temperature is reached)
- 9 Red LED "Fault"

### 6.1.1. Setting heating modes

Set the desired mode on rotary switch (2) of the Trumatic control element as follows:

- Summer operation, position (4) or
- Winter operation, position (5/6)

Once one of the two modes is switched on, the green indicator lamp (3) behind the rotary knob goes on.

If the green indicator lamp does not go on, replace the fuse in the electronic control unit and/or the fuse for the battery monitor.

A continuously lit red indicator lamp (9) indicates a closed gas bottle shut-off valve and/or appliance shut-off valve, interrupted air flow, air in the gas line or a faulty fuse. The fault is cleared by turning the appliance off and then back on again.

Fig. 7 – TRUMA control panel



### 6.1.2. Heating – Summer operation

#### Heating: Hot water only

Set the rotary switch (2) to the desired water temperature 40 °C or 60 °C (4). Once the desired temperature has been reached, the burner shuts down and the yellow indicator lamp "Boiler warm-up phase" (8) goes off. This function is only available in summer mode. The burner operates at the lowest burner setting.

### 6.1.3. Heating – Winter operation

#### Heating with controlled water temperature

- 1. Set the rotary switch (Fig. 7, item 2) to position (Fig. 7, item 6).
- 2. Turn the rotary knob (Fig. 7, item 1) to the desired thermostat setting 1-5 for the room temperature. Green indicator lamp "Operating" (Fig. 7, item 3) goes on and shows the room temperature selected. After attaining the room temperature selected, the burner switches to the lowest setting and heats the water in the boiler to  $60\,^{\circ}$ C.

Yellow indicator lamp "Boiler warm-up phase" (Fig. 7, item 8) shows the heating phase and goes off when the water temperature has been attained.

#### Heating without controlled water temperature

- **1.** Set the rotary switch (Fig. 7, item 2) to position (Fig. 7, item 5).
- 2. Turn the rotary knob (Fig. 7, item 1) to the desired thermostat setting 1-5 for the room temperature. Green indicator lamp "Operating" (Fig. 7, item 3) goes on and shows the room temperature selected. After attaining the room temperature selected, the heating switches off. When the boiler is filled, the water is heated automatically as well.

In this mode, the yellow indicator lamp "Boiler warm-up phase" (Fig. 7, item 8) is only on for water temperatures below 5 °C.

<u>Recommended</u>: turn the rotary knob (Fig. 7, item 1) to thermostat setting 1 or 2 before going to sleep, due to the fact that during the night the settings 4 or 5 might be too strong and automatically set the heating system **OFF** to avoid overheating.



Heating is unrestricted with or without water.

#### Heating with drained water system

- 1. Set the rotary switch (Fig. 7, item 2) to position (Fig. 7, item 5).
- 2. Turn the rotary knob (Fig. 7, item 1) to the desired thermostat setting 1-5 for the room temperature. Green indicator lamp "Operating" (Fig. 7, item 3) goes on and shows the room temperature selected. After attaining the room temperature selected, the heating switches off, which might happen during the night.

In this mode, the yellow indicator lamp "Boiler warm-up phase" (Fig. 7, item 8) is only on for water temperatures below 5 °C.



### 6.1.4. Troubleshooting guide TRUMA heater

- Open window above cowl

(window switch)

Flashing code at analogue control panel – CP Classic Flash sequence LED:

On / Off:

0.5 seconds

Pause between flash sequence:

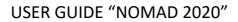
5 seconds

yellow LED flashes 3 x

Fault Rectification Cause No LED is on, the unit is switched - Automatic restart is blocked, e.g. - Reset (fault reset) by switching off, waiting 5 seconds and then on and is supplied with operating after an power failure. switching on again No LED illuminates - No operating voltage - Check 12 V battery voltage, charge battery if necessary after switching on. Check all electrical plug connections Device fuse or vehicle fuse - Check fuse of unit or vehicle and replace if necessary (see fuses) defective The green LED comes on when the - The temperature setting on the Select higher room temperature at the control panel unit is switched on, but the heating control panel is lower than the system does not operate room temperature After switching on the heating system, the green LED illuminates and the yellow LED flashes 1 x - Risk of low voltage - Charge battery (Heating system continues to operate) Battery voltage too low < 10.4 V Low voltage yellow LED flashes 2 x - Charge battery. If necessary replace old battery (Heating system not operating) Battery voltage too low < 10.0 V Overvoltage > 16.4 V - Check battery voltage and voltage sources such as the charger - No 230 V operating voltage (Only with Combi E) - Restore 230 V operating voltage 230 V fuse defective - Replace 230 V fuse Overheating protection has been - Reset overheating protection, allow heating system to cool, remove connection cover and press reset button

- Close window

Fault	Cause	Rectification
yellow LED flashes 4 x (After operating for a longer period of time, the heating system switches to failure)	<ul> <li>Summer mode with empty water container</li> </ul>	<ul> <li>Switch unit off and allow to cool, fill boiler with water</li> </ul>
	<ul> <li>Warm air outlets blocked</li> </ul>	<ul> <li>Check individual outlet apertures</li> </ul>
	<ul> <li>Circulated air intake blocked</li> </ul>	<ul> <li>Remove blockage from circulated air intake</li> </ul>
yellow LED flashes 5 x	<ul> <li>Room temperature sensor or cable defective</li> </ul>	- Please contact Truma Service
yellow LED flashes 7 x	<ul> <li>Control panel or control panel cable defective</li> </ul>	<ul> <li>Please contact Truma Service</li> </ul>
yellow LED flashes 8 x	<ul> <li>FrostControl heating element has a short circuit</li> </ul>	<ul> <li>Disconnect heating element plug from electronic control unit, re- place heating element</li> </ul>
yellow LED flashes 9 x (approx. 30 seconds after switching on the heating system)	<ul> <li>Gas cylinder or quick-acting valve in gas supply line closed</li> </ul>	<ul> <li>Check gas supply and open valves</li> </ul>
	<ul> <li>Gas cylinder empty</li> </ul>	<ul> <li>Replacing a gas cylinder</li> </ul>
(After operating for a longer pe- riod of time, the heating system	<ul> <li>Gas pressure regulation system iced up</li> </ul>	<ul> <li>Use regulator heater (EisEx)</li> </ul>
switches to failure)	<ul> <li>Butane content in the gas cylin- der too high</li> </ul>	<ul> <li>Use propane (butane is unsuitable for heating, particularly at temperatures below 10 °C)</li> </ul>
Red LED flashes 1 - 8 times	<ul> <li>Heating system fault</li> </ul>	<ul> <li>Please contact Truma Service.</li> <li>Determine flashing code (short, long) if necessary: Red LED on heater electronics.</li> </ul>
Green LED flashes (with 5 Hz) after the heating system has been switched off	<ul> <li>After-running is active to reduce the temperature of the unit</li> </ul>	<ul> <li>No fault. After-run switches itself off after max. 5 minutes.</li> </ul>
Room heating does not react to adjustment immediately	<ul> <li>After-running is active to reduce the temperature of the unit</li> </ul>	No fault. After-run switches itself off after max. 5 minutes
After switching on the green and the red LED illuminate	<ul> <li>Faulty electronics</li> </ul>	<ul> <li>Please contact Truma Service</li> </ul>





Fault	Cause	Rectification
No LED illuminates after switching on.	<ul> <li>No operating voltage</li> <li>Device fuse or vehicle fuse defective</li> </ul>	<ul> <li>Check 12 V battery voltage, charge battery if necessary</li> <li>Check all electrical plug connections</li> <li>Check fuse of unit or vehicle, replace if necessary (see fuses)</li> </ul>
The green LED illuminates when the unit is switched on, but the heating system does not operate	<ul> <li>The temperature setting on the control panel is lower than the room temperature</li> </ul>	<ul> <li>Select higher room temperature at the control panel</li> </ul>
Green LED flashes (with 5 Hz) after the heating system has been switched off	<ul> <li>After-running is active to reduce the temperature of the unit</li> </ul>	<ul> <li>No fault, after-run switches itself off after max. 5 minutes</li> </ul>
Red LED flashes 6 x	<ul> <li>Lack of fuel due to insufficient fuel tank filling, tank has run empty and / or vehicle is on a slope</li> </ul>	<ul> <li>Fill tank with fuel, then fill fuel line as described in "Initial start-up"</li> </ul>
Red LED flashes (except 6 times) or red LED permanently on	<ul> <li>Heater malfunction</li> </ul>	Please contact Truma Service
Yellow LED flashes 1 x	<ul><li>Risk of low voltage</li><li>&lt; 11.5 V</li></ul>	<ul> <li>Use the electrical power from the battery sparingly,</li> <li>e.g. restrict lighting</li> <li>Charge battery</li> </ul>
Yellow LED flashes 2 x	<ul><li>Undervoltage &lt; 10.2 V</li></ul>	<ul> <li>Check battery voltage, charge battery if necessary</li> <li>Short-term immediate action, switch off major consumers or start up vehicle engine until the heating system starts running (approx. 4 minutes)</li> <li>Battery capacity inadequate, if necessary exchange old battery</li> </ul>

Fault	Cause	Rectification
Yellow LED flashes 2 x	- Overvoltage > 16.4 V	<ul> <li>Check battery voltage and voltage sources such as the charger</li> </ul>
(Only with Combi E)	<ul> <li>No 230 V operating voltage</li> <li>230 V fuse defective</li> <li>Overheating protection has been triggered</li> </ul>	<ul> <li>Restore 230 V operating voltage</li> <li>Replace 230 V fuse</li> <li>Reset overheating protection, allow heating system to cool, remove connection cover and press reset button</li> </ul>
Yellow LED flashes 3 x	<ul> <li>Open window above cowl (window switch)</li> </ul>	- Close window
Yellow LED flashes 4 x	<ul> <li>Warm air temperature and / or water temperature exceeded:</li> </ul>	
	<ul> <li>Not all warm air ducts are connected</li> </ul>	<ul> <li>Check whether the 4 warm air ducts are connected</li> </ul>
	<ul> <li>Warm air outlets blocked</li> <li>Circulated air intake blocked</li> </ul>	<ul> <li>Check individual outlet apertures</li> <li>Remove blockage from circulated air intake</li> </ul>
	<ul> <li>Summer mode with empty water container</li> </ul>	- Fill boiler with water
Yellow LED flashes 5 x	<ul> <li>Room temperature sensor or cable defective</li> </ul>	- Please contact Truma Service
Yellow LED flashes 6 x	<ul> <li>Water temperature exceeded in summer mode</li> </ul>	- Fill boiler with water
Yellow LED flashes 7 x	<ul> <li>Control panel or control panel cable defective</li> </ul>	- Please contact Truma Service
Yellow LED flashes 8 x	<ul> <li>FrostControl heating element has a short circuit</li> </ul>	<ul> <li>Disconnect heating element plug from electronic control unit, replace heating element</li> </ul>



#### 7. REFRIGERATOR



The campervan is equipped with a two-way fridge, powered by 12 Volt backup battery when driving, and 230 Volt when the vehicle is connected with cable to a campsite.

Rotate the knob selector inside the cooler and select the adequate option, depending on the case:

- turn **OFF** while parked, and with **no** 230V cable connection previously selected temperature will be maintained;
- turn **ON**, selecting **Min**, while driving light refrigeration capacity;
- select **any** position (Min to Max) according to desired temperature while parked and connected to campsite via charging cable.



### **NOTE!**

Even if the main control panel is OFF (Fig. 1, item 9) the refrigerator will be working all the time to control temperature inside. Same applies even if the vehicle is totally switched off, including engine and/or ignition. Make sure to turn it **OFF**, in the refrigerator control knob, when not in use or when you return the campervan and simply wish to maintain the same temperature when disconnected from a power source.

#### 8. TOILET



# **CAUTION!**

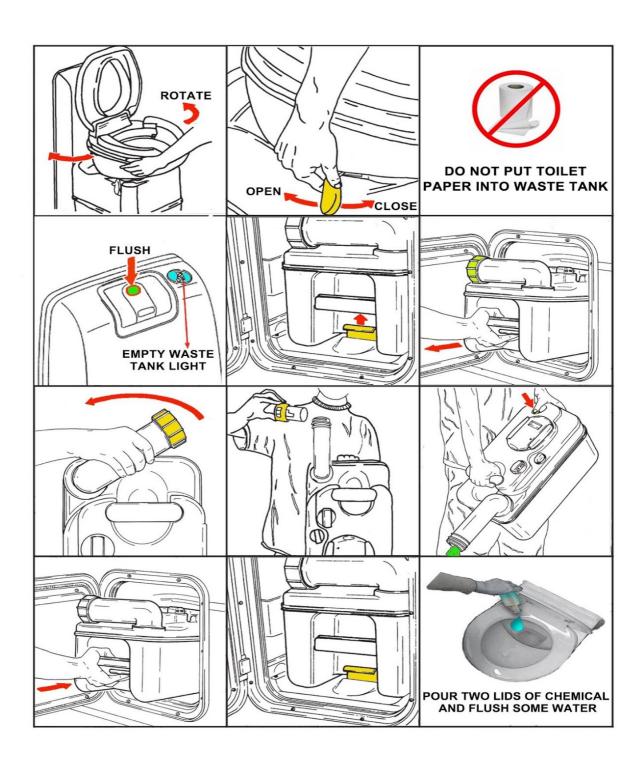
- Only empty the cassette on camp sites with suitable sewage systems or specially designated disposal facilities!
- Empty the cassette completely if there is a risk of frost and the motorhome is not heated!
- In winter, the toilet flush should not be used until the WC cubicle has warmed up thoroughly otherwise the water pump of the toilet may be damaged!
- An environmentally friendly and fully biodegradable chemical WC additive should be used for the WC.
- If environmental concerns exist, the WC can also be used without chemical additives but the cassette will require more frequent emptying as a result.



### **NOTE!**

- 1. Before using the toilet, turn the water pump ON (Fig. 1, item 10) and push down the flush button briefly to allow a small amount of water into the bowl or open the valve blade under the toilet bowl. The toilet is now ready for use.
- 2. After use, open the valve blade if still closed by pulling the valve blade grip forwards and flush the toilet by pressing the flush button.
- 3. Do not put toilet paper into the waste cassette.
- 4. Close the valve blade again after flushing.







Always empty and clean waste toilet cassette and waste water tank before delivering the campervan, otherwise a **Cleaning Fee** will apply.



### 9. COCKPIT BLINDS

Campervan is equipped with front blinds in doors and windscreen windows that need to be handled with care. Please follow these steps:



1. Search for the magnetic ends and match them with their corresponding connecting spots.



2. Hold the blind in place, tight to the window frame, taking care not to damage nor crease them.