

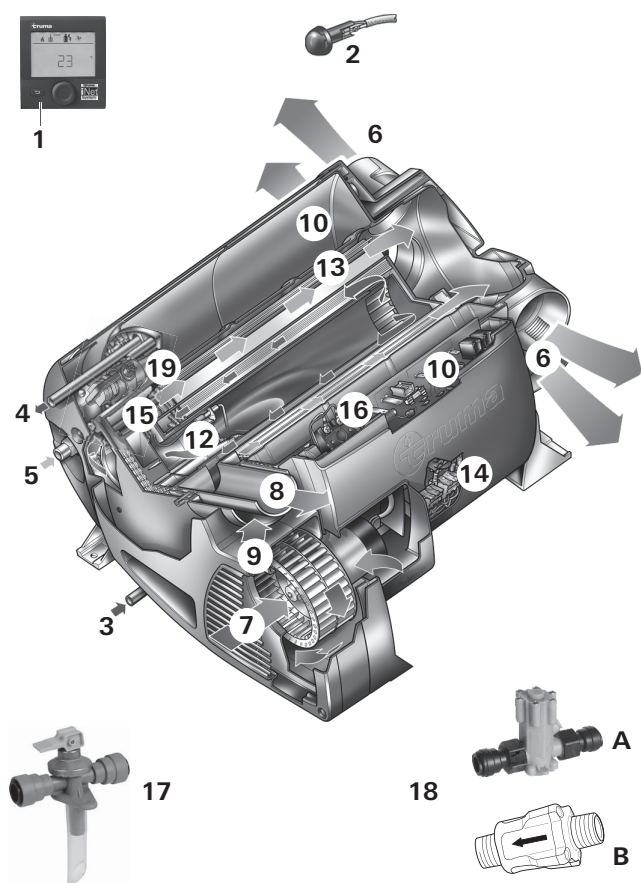


# Truma Combi 2 E / 4 E AU

**AUS** **Operating instructions**

To be kept in the vehicle!

Page 2



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Fig. 1

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## Operating instructions

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## Trademark information

Truma Combi, referred to as Combi below.

## Symbols used



**The unit must only be installed and repaired by an expert.**



Symbol indicates a possible hazard.



Comment including information and tips.



Observe the ESD regulations! An electrostatic charge can destroy the electronics. Ensure potential equalisation before touching the electronics.

## Safety instructions

### If the gas system is leaking or if there is a smell of gas:

- extinguish all open flames
- open windows and door
- close all quick-acting valves and gas cylinders
- do not smoke
- do not activate any electric switches
- ask an expert to inspect the entire system!

### Ensuring a safe operating environment

- The unit may be operated only with appropriate Truma control panels and accessories.

- **Danger of suffocation!** To ensure dissipation of exhaust gases, operate the appliance outdoors only. Never use in enclosed spaces or tents or breathe in the exhaust gases.

- If the cowl has been placed near or directly beneath an opening window, the appliance must be equipped with an automatic shut-off device in order to prevent operation with the window open.

- **Do not** place articles on or against this appliance.

- **Do not** use or store flammable materials near this appliance.

- **Do not** spray aerosols in the vicinity of this appliance while it is in operation.

- **Do not** modify this appliance.

- **Do not** use any after market air filters or air grills. The use of such components may cause the unit to overheat.

- Keep flammable materials away from the area in front of the hot air outlets. Never block the hot air outlets.

- In order to avoid overheating of the appliance keep the air inlets of the device, the air openings to the area in which the appliance is installed and the spacing around the appliance free of obstruction.

- Keep the cowl for the exhaust duct and combustion air intake free of blockages (slush, ice, leaves etc.) at all times.

- **Warning:** Air from the discharge vent may be hot. Do not place combustible materials directly in front of the discharge vent. Keep curtains, bedding and other flammable materials away from the vent.

- Water may drip from the discharge pipe of the P&T relief valve and this pipe must be left open to the atmosphere.

- Any discharge pipe connected to the P&T relief valve is to be installed in a continuously downward direction and in a frost free ambient.

### Obligations of the operator / vehicle owner

- The operator is responsible for the water filled into the Combi water container and its quality.

- The vehicle owner is responsible for correct operation of the appliance.

- The installer or vehicle owner must apply the yellow sticker with the warning information, which is enclosed with the appliance, to a place in the vehicle where it is clearly visible to all users (e.g. on the wardrobe door)! Ask Leisure-Tec Service to send you stickers, if necessary.

- For your own safety it is absolutely necessary to have the complete gas installation regularly checked by an expert (at least every 2 years). The vehicle owner is always responsible for arranging the gas inspection.

- Check gas hoses regularly and have them replaced if they become brittle.

- The use of upright gas cylinders from which gas is **taken in the gas phase** is mandatory for the operation of gas regulators, gas equipment and gas systems. Gas cylinders from which gas is taken in the liquid phase (e. g. for forklifts) must not be used, since they would result in damage to the gas system.
- The operating pressure for the gas supply is 2.75 kPa and must correspond to the operating pressure of the appliance (see type plate).
- LPG systems and pressure regulators must comply with the technical and administrative regulations of the country in which the appliance is used (AS/NZS 5601).
- We recommend the gas pressure control system Truma MonoControl CS for vehicles and the Truma gas pressure control system DuoControl CS for dual-cylinder gas systems.
- The flow rate of the pressure control device must correspond to at least the maximum consumption of all devices installed by the system manufacturer.
- At temperatures of around 0 °C or less the gas pressure regulator and the changeover valve should be operated using the EisEx regulator heater.
- Controller connecting hoses that meet national regulations must always be used in the respective country for which the equipment is destined.
- Ensure that the inside of the vehicle is sufficiently ventilated. When the unit is started up, there may be some smoke and/or smell due to dust or dirt. Especially if it has not been used for a long time.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

- The integrity and tight fit of the exhaust gas double duct must be checked regularly, particularly at the end of long trips. Also check the mounting of the appliance and the cowl.

### **Safe operation while driving**

- Shut OFF gas and the LPG tank when moving the RV. This disables all gas appliances and pilot lights. Gas appliances must never be operated while vehicle is in motion.
- Liquefied gas equipment may not be used when refuelling, in multi-storey car parks, in garages, or on ferries.
- If the heater is not being used, always drain the water if there is a risk of frost. **No warranty claims for frost damage will be accepted.**
- To prevent damage to the device from spray water, such as when cleaning the vehicle, do not spray water directly into the wall cowl.

### **Safe handling of malfunctions**

- If you notice unusual sounds or smells, close the gas supply and switch the Combi off.
- Danger of fire / explosion if you attempt to use a Combi that has been damaged by flooding or if the vehicle has been involved in an accident. A damaged Combi must be repaired by an expert or be replaced.
- The damaged Combi may have to be replaced with a new one.
- Only carry out repairs yourself if the solution is described in the troubleshooting guide of this manual.
- Following a blow-back (misfire) always have the exhaust duct checked by an expert.

### **Safe maintenance and repair**

- The unit may only be repaired and cleaned by authorised persons.
- Children must not carry out maintenance, repair or cleaning work.

- Guarantee claims, warranty claims and acceptance of liability will be ruled out in the event of the following:
  - modifications to the unit (including accessories),
  - modifications to the exhaust duct and the cowl,
  - failure to use original Truma parts as replacement parts and accessories,
  - failure to follow the installation and operating instructions.
- It also becomes illegal to use the appliance, and in some countries this even makes it illegal to use the vehicle.
- With a new Combi or if the unit has not been used for some time, rinse all hot/cold water hoses with drinking water thoroughly before use.
- Failure to operate the drain valve and the P&T safety valve at least once every six months may result in the water heater exploding. Continuous leakage of water from the valves may indicate a problem with the water heater.
- The drainage socket of the drain valve must be free of blockages (slush, ice, leaves, etc.) at all times so the water can drain easily! No warranty claims for frost damage will be accepted.
- The operation of the overheating protection 240 V indicates a possibly dangerous situation. Do not reset the overheating protection 240 V until the water heater has been serviced by a qualified person.

## Function description

The Combi 2 E / 4 E (Australia) liquefied gas heater is a warm-air heater with integrated hot water system (10 litre capacity). The burner is fan-assisted, which ensures that operation is problem-free, even when on the move. The unit also has heating elements for electrical operation.

In **heating and hot water mode** the heater can be used to heat the room and heat water at the same time. If only hot water is required, select **hot water mode**.

3 different options are available for operating the unit:

- **gas mode** only  
LPG for autonomous use
- **electrical mode** only  
240 V for stationary use on camp sites
- or gas and electrical mode – **mixed mode**  
Only possible in heating and hot water mode.

## Heating and hot water mode

In **heating and hot water mode**, the unit automatically selects the required operating level according to the temperature difference between the temperature set on the control panel and the current room temperature. If the hot water system has been filled, the water is automatically heated as well. The water temperature depends on the selected operating mode and the heater output.

All 3 energy selection options can be used for winter deployment.

- In **gas mode** the unit automatically selects the operating level that is required.
- In **electrical mode** output of 980 W (4.1 A) or 1960 W (8.1 A) can be manually preselected in accordance with the fuse protection at the camp site.

If more output is required (e.g. heating up or low outside temperatures) gas or mixed mode should be selected so that enough heating power is always available.


- In **mixed mode** 240 V electrical mode is preferred if the power requirement is low (e.g. for maintaining the room temperature). The gas burner is not enabled until the power requirement is higher, and is the first to switch off during heat-up operation.

## Hot water mode

(with filled hot water system only)

Gas mode or 240 V electrical mode is used to generate hot water. The water temperature can be set to 60 °C.

- In **gas mode** the water is heated at the lowest burner setting. Once the water temperature has been reached, the burner switches off.
- In **electrical mode** output of 980 W (4.1 A) or 1960 W (8.1 A) can be manually selected in accordance with the fuse protection at the camp site.

 **Mixed mode** is not possible. With this setting the unit automatically selects electrical mode. The gas burner is not enabled.

## Operating instructions

**Read the safety instructions and operating manual carefully before starting the unit.**

**i** Operating instructions can be viewed in offline mode with a mobile device and the Truma App. Download the operating instructions when you have a WiFi connection and save them on your mobile device.

**i** Before using for the first time, it is essential to flush the entire water supply system with clean water. If the heater is not being used, always drain the water if there is a risk of frost. **No warranty claims for frost damage will be accepted.**

## Control panels

The control panels are described in a separate operating instruction.

## Room temperature sensor

To measure the room temperature, an external room temperature sensor (2) is located in the vehicle. The position of the sensor is determined by the vehicle manufacturer, depending on the vehicle model. More information can be found in the operating instructions for your vehicle.

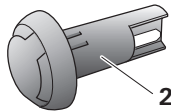


Fig. 2

The temperature setting on the control panel depends on personal heating requirements and the design of the vehicle, and must be determined individually.

## Drain valve

The drain valve automatically equalises the pressure in the event of overpressure in the system. When this occurs, the water is drained to the outside in intermittent bursts via a drainage socket.

**i** This drain valve does not protect the water container from **frost damage**.

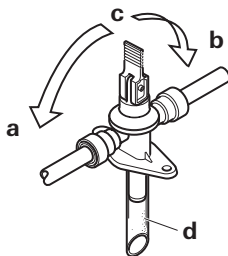


Fig. 3

- a = Lever in position "Operational – closed"
- b = Lever in position "Operational – closed"
- c = Lever in position "Drain"
- d = Drainage socket (led outside through floor of vehicle)

### Opening the drain valve

- Move lever to position (c) – vertical. The water from the hot water system drains through the drainage socket (d).

**!** The drainage socket (d) of the drain valve must be free of blockages (slush, ice, leaves, etc.) at all times so the water can drain easily! **No warranty claims for frost damage will be accepted.**

### Closing the drain valve

- Move lever to position (a) or (b) – horizontal.

## P&T relief valve

### (Pressure and temperature relief valve)



Risk of scalding injury from hot water and/or tampering with the P&T relief valve!

- Do not actuate the P&T relief valve as long as the appliance is still hot.
- Do not place a plug or reducing coupling in the discharge pipe (Fig. 3a - 19a) of the P&T relief valve.
- Do not operate the water heater without a functioning P&T relief valve.

The P&T relief valve (19) is a safety component and must not be removed for any reason other than replacement.

The P&T relief valve is not serviceable; if defective it must be replaced (failure to reuse an old P&T relief valve). It must be replaced by a certified service technician.

Tampering with the P&T relief valve will void the warranty.

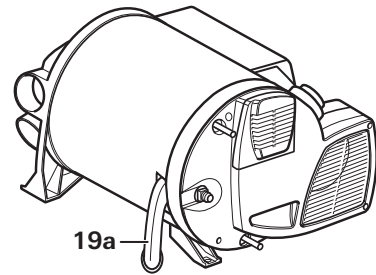


Fig. 4

## Filling the hot water system

Check whether the drain valve is closed (see "Closing the drain valve").

- Switch on the power for the water pump (main switch or pump switch).
- Open hot water taps in kitchen and bathroom, (set preselecting mixing taps or single-lever fittings to "hot"). Leave the fittings open for as long as it takes for the hot water system to displace the air and fill up and the water to flow without interruption.

**i** If only the cold water system is being operated without the hot water system, the hot water system also fills up with water. To avoid frost damage, the hot water system must be drained via the drain valve, even if it was not operated.

In the event of frost, filling may be prevented by residual water that has frozen. The hot water system can be thawed out again by briefly starting it up (max. 2 minutes). Frozen lines can be thawed out by heating up the interior.



If connected to a central water supply (rural or urban connection), a pressure reducer must be used, which will prevent pressures of greater than 280 kPa from occurring in the hot water system.

## Draining the hot water system

**!** If the motor home / caravan is not used during the winter, the hot water system must be drained! **No warranty claims for frost damage will be accepted.**

- Switch off the power to the pump assembly (main switch or pump switch).
- Open hot water taps in kitchen and bathroom.

**i** In order to check the water that is flowing out, place an appropriate container (capacity 10 litres) beneath the drainage socket (d) of the drain valve.

- Open drain valve (see “Opening the drain valve”).

The hot water system is now drained directly to the outside via the drain valve. Check whether all of the water in the hot water system (10 litres) has been drained into the container via the drain valve.

## Start-up

**The use of the installed control panel is described in separate operating instructions.**

The interior can be heated in gas, electrical or mixed mode, either with or without water, depending on the setting.

Check whether the power supply fuse protection at the camp site is adequate for the 980 W (4.1 A) or 1960 W (8.1 A) that have been selected.

The cable drum must be fully unwound in order to prevent the power cable from overheating.

- Check to make sure the cowl is unobstructed. Be sure to remove any covers that may be present.
- Open gas cylinder and quick-acting valve in gas supply line.
- Fill hot water system with water if necessary (see “Filling the hot water system”).
- Switch on heater at control panel.

## Switching off

- Switch off heater at control panel.

**i** The switch-off procedure may be delayed by several minutes because of internal heater operations.

### Always drain water if there is a risk of frost!

If the heater is not going to be used for a long period of time, close the quick-acting valve in the gas supply line and turn off the gas cylinder.

## Maintenance

Only original Truma parts may be used for maintenance and repair work!

**!** Servicing should be carried out only by authorised personnel.

Please contact Leisure-Tec Service Centre for service and repairs.

**!** Failure to operate the drain valve and the P&T safety valve at least once every six months may result in the water heater exploding. Continuous leakage of water from the valves may indicate a problem with the water heater.

Biofilm, deposits and limescale must be removed using chemicals to protect the unit from infestation by microorganisms. Only chloride-free products must be used in order to prevent damage to the unit.

The effectiveness of the use of chemicals to combat microorganisms in the unit can be increased by heating the water in the hot water system to 70 °C at regular intervals.

- Select “Gas” mode.
- Set water temperature to 60 °C.
- Switch on device.

**i** Once the water in the hot water system has reached a temperature of 60 °C, the burner will switch off. The unit must stay switched on for at least 30 minutes and no warm water may be removed. The residual heat in the heat exchanger will heat the water up to 70 °C.

## Fuses

### Fuse 12 V

The fuse is in the electronics beneath the connection cover. Replace the unit’s fuse only with an identical fuse.

Device fuse: 10 A – slow – 5 x 20 mm

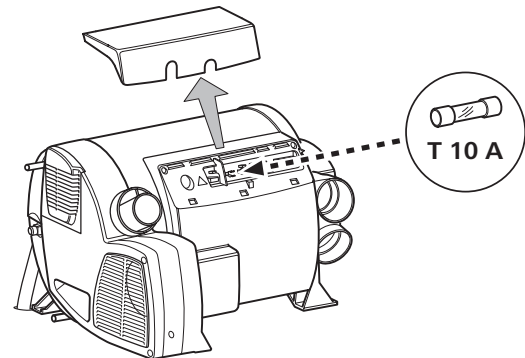


Fig. 5

### Fuse 240 V

The fuse and the power supply lines must only be replaced by an expert!

**!** The unit must be disconnected from the mains (all poles) before opening the electronic housing lid.

The fuse is in the power electronics (16) beneath the electronic housing cover.

This fine fuse must always be replaced with a fuse of the same type: 10 A, slow, interrupting capacity “H”.

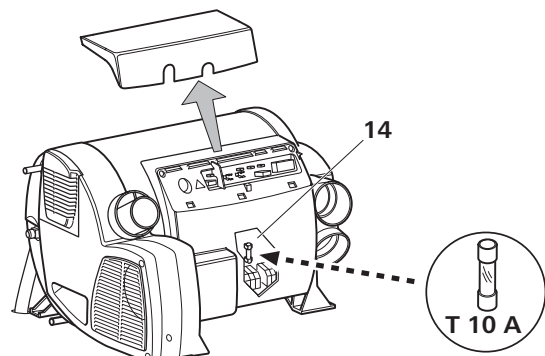

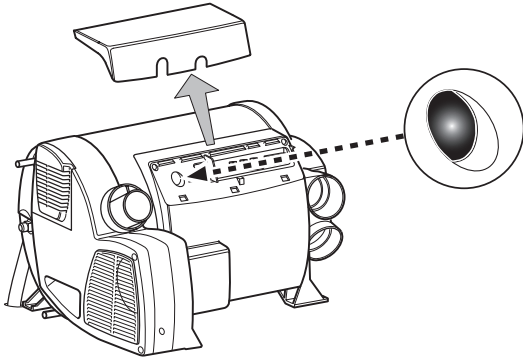


Fig. 6

## Overheating protection 240 V

 The operation of the overheating protection 240 V indicates a possibly dangerous situation. Do not reset the overheating protection 240 V until the water heater has been serviced by a qualified person.

The 240 V heating facility has a mechanical overheating switch. If the 12 V power supply is interrupted during operation or during the after-run period, for example, the temperatures within the unit could activate the overheating protection.



**Fig. 7**

To reset the overheating protection, allow heater to cool, remove connection cover and press red reset button.

## Faults

### Faults – Heater

Descriptions of possible fault causes and a troubleshooting guide can be found in the operating instructions for the control panel that is installed.

### Faults – Water supply

Possible fault causes and a troubleshooting guide – See “Troubleshooting guide (water supply)”.

## Troubleshooting guide (water supply)

Fault	Cause / Remedy
Water taking an extremely long time to heat up.	Water container furred. / Descale water system (see “Maintenance”).
Water running out, cannot fill hot water system.	Drain valve open. / Close drain valve.
Cannot empty hot water system, even though drain valve is open.	Drain valve draining connection blocked. / Inspect opening for blockages (slush, ice, leaves, etc.) and remove blockage if necessary.
Water dripping/flowing from draining socket of drain valve.	Water pressure too high. / Check pump pressure (max. 280 kPa). If connected to a central water supply (rural or urban connection), a pressure reducer must be used, which will prevent pressures higher than 280 kPa entering the hot water system.
When opening the cold water tap, hot water comes out.	Hot water flows back through the cold water supply. / Fit a non-return valve in the cold water supply (refer to installation instructions “Water connection”).

**If these measures do not rectify the fault, please contact the nearest Leisure-Tec Service Centre.**

## Disposal

The device must be disposed of in line with the administrative regulations of the respective country in which it is used. National regulations and laws must be observed.



## Technical data

determined in accordance with EN 624 or Truma test conditions

### Protection type / protection class

IP21 / class I

### Type of gas

LPG (Liquefied Petroleum Gas – propane / butane)

### Operating pressure

2.75 kPa (see type plate)

### Water capacity

10 litres

Maximum working water pressure

500 kPa

P&T relief valve setting

500 kPa – 99 °C – 10 kW

### Heating up time from approx. 15 °C to approx. 60 °C

Hot water system approx. 23 minutes

(measured according to EN 15033)

Heater + hot water system approx. 90 min.

### Pump pressure

max. 280 kPa

### System pressure

max. 450 kPa

### Nominal input (Propane)

Combi 2 E (Australia): 6.9 MJ/h

Combi 4 E (Australia): 13.6 MJ/h

### Thermal output

Electrical operation (240 V): 980 W / 1960 W

Mixed operation (gas and electrical): max. 3900 W

Gas operation

Combi 2 E (Australia): max. 1950 W

Combi 4 E (Australia): max. 3900 W

### Gas consumption (Propane)

Combi 2 E (Australia): 130 g/h

Combi 4 E (Australia): 130 – 260 g/h

### Air delivery volume (free-blowing without hot-air pipe)

with 3 hot-air outlets max. 249 m<sup>3</sup>/h

with 4 hot-air outlets max. 287 m<sup>3</sup>/h

### Current input at 12 V $\text{---}$

Heater + hot water system

Short-term max. 5.6 A (average power consumption 1.1 A)

Heating up of hot water system: 0.4 A

Stand-by: 0.001 A

### Current input at 240 V $\sim$

4.1 A (980 W) or 8.1 A (1960 W)

### Weight (not containing water)

Heater unit: 16.2 kg

Heater unit with

peripheral devices: 16.8 kg

### Water pressure reducer

Flow range water: 0 – 10 litres/min.

Maximum inlet pressure: 700 kPa

Maximum outlet pressure: 200 kPa



## Dimensions

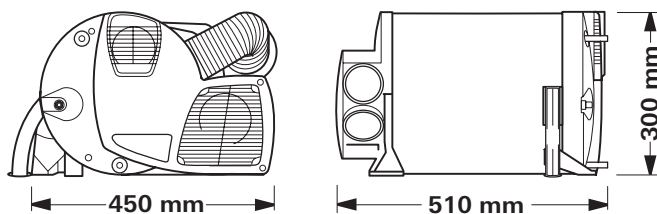


Fig. 8

The right to make technical modifications is reserved!

## Accessories

### Truma CP plus

Digital control panel Truma CP plus with automatic air conditioning system for the Truma heaters Combi and Truma air conditioning systems Aventa eco, Aventa comfort (from serial number 24084022 – 04/2013), Saphir comfort RC and Saphir compact (from serial number 23091001 – 04/2012)

- The automatic air conditioning system function automatically controls the heater and the air conditioning system until the required temperature is reached in the vehicle..



Fig. 9

### Accessories (without picture) for control panels

- Cable available in different lengths

## Truma warranty policy

The warranty is given by Leisure-Tec Australia Pty. Ltd., 50 Metrolink Circuit, Campbellfield, Victoria, 3061, Australia for 12 months from the date of purchase against any defect arising from faulty materials or workmanship.

Repairs will be carried out during normal business hours only by Leisure-Tec Australia Pty. Ltd., or its duly authorised service agents, and are subject to the warranty conditions and exclusions hereunder.

### Warranty conditions

- The company will only provide service on presentation of proof of purchase, on either the Truma product, or the Caravan / RV / Pleasure Craft in which the Truma product has been installed, to any authorised service agent. The purchaser must allow the service agent to photocopy the proof of purchase to facilitate his claim to the manufacturer.
- Warranty repairs can only be performed by authorised service agents and under no circumstances will Leisure-Tec reimburse repairs carried out by unauthorised persons. Tampering with any part of the product by unauthorised personnel will automatically void the warranty.
- The product must be used solely for domestic purposes. If the product is used for commercial purposes the warranty is 6 months only.
- Where applicable, the products must be used on the appropriate electrical voltage, gas type and pressure, or fuel source.
- If at any time during the warranty period any part or parts are replaced with a part or parts not supplied or approved by Truma, this warranty shall immediately become void.

### Important notice

Before calling a service technician please check carefully the operating instructions, warranty terms and conditions. If the product fails for any of the reasons detailed therein, or is faulty due to abuse, misuse or improper installation, then a service fee shall be charged to the purchaser.

If you have any queries regarding the interpretation of the warranty you should contact Leisure-Tec Australia Pty. Ltd.

Whilst this book represents service outlets at the time of printing, changes occur from time to time. Should you have any queries or wish to locate your nearest authorised service agent please contact Leisure-Tec Australia Pty. Ltd.

### Warranty does not cover

- Any heater which has been:
  - (a) Subject to misuse, neglect, accident or alteration by any person.
  - (b) Damaged or destroyed by fire, flood, act of God or other inevitable accident.
- Fair wear and tear.
- Damage from foreign substances such as dirt or liquid.
- Travelling expenses or call out fee to and from authorised service agents' premises.
- Accommodation or Site Expenses.
- Cleaning of the system or cleaning and adjustment of the gas system. This is considered to be a part of normal product maintenance.
- Non operation of the heater or resultant damage to the unit where the heater has been operated in an out of level situation.
- Freight cost of the appliance or parts, to or from, point of service or transit damage.
- Leisure-Tec / Truma are not responsible for resultant loss or damage sustained by the purchaser.
- Non operation of the appliance or resultant damage to the unit where the appliance has not been installed, ventilated, flued or operated in accordance with the manufacturer's instructions.

Apart from any warranties implied by the Trade Practices Act 1974 or any relevant State legislation all other warranties express or implied whether arising by virtue of statute or otherwise are hereby excluded.

**AUS** In Australia, always notify the Leisure-Tec Service Centre if problems are encountered; in other countries the relevant service partners should be contacted ([www.truma.com](http://www.truma.com)).

Having the equipment model and the serial number ready (see type plate) will speed up processing.