



Truma VarioHeat eco AU

AUS **Operating instructions**
To be kept in the vehicle!

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Trademark information

Truma VarioHeat eco AU referred to as VarioHeat below.

Symbols used



The appliance must only be installed and repaired by an expert.



Symbol indicates a possible hazard.



Comment including information and tips.

Intended use

The VarioHeat liquefied gas heater is a warm-air heater for installation in recreational vehicles (RVs) only.

RVs are recreational vehicles designed as temporary living quarters for recreation, camping or travel use. Such vehicles have their own power or are towed by another vehicle.

Prohibited use

Any use other than the intended use (see above) is prohibited. Examples of prohibited use:

- Use in a marine environment.
- Use as part of a space heating system.
- Use in mobile homes.
- Use in food trucks or roadside food vending vehicles.
- Use in construction trailers
- Use as a pool heater

Safety instructions

- **Do not** operate this appliance before reading the instruction booklet.
- **Do not** place articles on or against 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 or store chemicals, flammable materials or spray aerosols near the appliance.

What to do if you smell gas.

- Extinguish all open flames
- Open doors and windows
- Close all quick-acting valves and gas cylinders
- Do not smoke
- Do not activate any electrical switches
- Have the complete gas system tested professionally.

Safe operating environment

- Operate the appliance only with the corresponding control panels and accessories from Truma.

– Risk of poisoning from exhaust gases

The exhaust gases from the heater can cause poisoning in enclosed spaces, such as garages or repair shops. If the RV is parked in an enclosed space:

- Block the fuel feed to the heater.
- Disable the time switch.
- Switch the heater off on the control panel.
- Make sure that appliances cannot be switched on via the Truma App.
- If the cowl was placed near or below a window that opens, the appliance must have an automatic switch-off device to prevent operation when the window is open.
- Keep flammable materials away from the area in front of warm air outlets. Never block the warm air outlets.
- So that the appliance does not overheat, do not obstruct the openings for circulated air intake, the opening to the installation location or the space around the appliance.
- The cowl for the exhaust duct and combustion air intake must be free of contamination at all times (slush, ice, leaves, etc.).
- Danger from hot surfaces and exhaust gas
Do not touch the area around the wall cowl and do not lean any objects against the wall cowl or the vehicle.
- 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.

Obligations of the operator / vehicle owner

- The vehicle owner is responsible for correct operation of the appliance.
- The installer or vehicle owner must attach the yellow sticker with the warning that is supplied at a place in the vehicle that is visible for every user (e.g. on the wardrobe door). More stickers can be obtained from Truma.

- The vehicle owner must arrange for the gas system to be tested (in Germany every 2 years) by an LPG expert (in Germany DVFG, TÜV, DEKRA). This must be confirmed on the corresponding test certificate (G 607).

- Check hoses regularly and replace when they are brittle.
- Pressure control devices and hoses must be replaced at the latest after 10 years from the date of manufacture (8 years for commercial use).

Safe operation

- To operate gas pressure regulation systems, gas appliances and gas systems, standing gas cylinders from which gas is **withdrawn from the gas phase** must be used. Gas cylinders from which gas is withdrawn from the liquid phase (e.g. for forklifts) are not permitted, as they damage the gas system.
- The working pressure of the gas supply (2.75 kPa) and of the appliance (see type plate) must correspond.
- LPG systems must comply with the technical and administrative regulations of the country in which they are used (in Europe, for example, EN 1949 for vehicles). National rules and regulations (in Germany, for example DVGW worksheet G 607 for vehicles) must be observed.
- For vehicles, we recommend the Truma MonoControl CS gas pressure regulation system and for two-cylinder systems, the Truma DuoComfort / DuoControl CS gas pressure regulation systems.
- At temperatures of 0 °C and below, the gas pressure regulation system and the change-over valve should be operated with the EisEx controller heater.
- Use only hoses that comply with the regulations of the country in which the appliance will be used.
- Ensure that the inside of the vehicle is sufficiently ventilated. When you start up the appliance, you may notice a slight smell or fumes due to dust or dirt. Especially if it has not been used for some time

- This appliance may be used by children from 8 years old and by persons with disabilities or with a lack of experience if they are supervised or have been instructed in the safe use of the appliance and understand the resulting risks. Children must not play with the appliance.
- The exhaust double duct must be checked regularly for damage and to ensure that it is not loose, especially after long journeys; this also applies to the mounting of the appliance and the cowl.

Operation while the vehicle is in motion

- For heating while the vehicle is in motion, a safety shut-off device is specified in the guideline UN ECE R 122 for Motorcaravans and Caravans. The Truma MonoControl CS gas pressure regulation system fulfils this requirement. If this gas pressure regulation system is installed with the corresponding dimensioned gas installation, operation of a type-tested liquid gas heater while the vehicle is in motion is permitted throughout Europe according to UN ECE R 122. National rules and regulations must be observed.
- If **no** safety shut-off device is installed (e.g. as contained in the Truma MonoControl CS gas pressure regulation system), the gas cylinder must remain closed while the vehicle is moving and **signs** must be attached in the cylinder compartment and near the control panel.
- LP gas appliances must not be used while the vehicle is being refuelled, in covered car parks, garages or on ferries.

What to do in case of malfunctions

- If you notice unusual noises or smells, close the gas supply and switch off the appliance.
- Risk of fire / explosion if you attempt to use an appliance that has been damaged by flooding or if the vehicle has been involved in an accident. Damaged appliances must be professionally repaired or replaced.
- Have malfunctions rectified by an expert without delay.
- Repair malfunctions yourself only if the repair is described in the troubleshooting guide of these operating instructions.

- After deflagration (misfiring), have the appliance and the exhaust duct checked professionally.

Maintenance / repair / cleaning

- The appliance may only be repaired, maintained and cleaned by a qualified service technician.
- A new O-ring must always be installed after dismantling the exhaust duct!
- Children must not carry out maintenance, repair or cleaning work.
- The following will especially void warranty, guarantee and liability claims:
 - Modifications to the appliance (including accessories),
 - Modifications to the exhaust duct or cowl,
 - Use of spare parts and accessories other than Truma original parts,
 - Non-compliance with installation and operating instructions.

The operating permit for the appliance is also void and, as a result, also the vehicle operation permit in some countries.

- To prevent damage from spray water, such as when cleaning the vehicle, do not spray water directly into the cowl.

Function description

VarioHeat is a warm-air heater for circulated air operation to heat camping vehicles quickly. The burner is fan-assisted, which ensures that operation is problem-free, even when on the move.

The appliance automatically chooses the required operating level based on the temperature difference between the temperature set on the control panel and the current room temperature. It also has a boost function for rapid heating and a night function for quieter operation. The different ventilation levels allow circulation mode without heating.

The digital control panel allows other functions to be selected, such as a time switch or operation of a Truma air conditioning system. Information can be found in Truma CP plus VarioHeat digital control panel

The appliance always starts at the lowest setting. If this is not sufficient to reach the desired temperature in the vehicle, after about 5 minutes the appliance switches to a higher operating level.

Operating instructions

Before starting the appliance for the first time, it is important that you read the operating instructions and "Important operating notes". The vehicle owner is responsible for ensuring that the appliance can be operated as intended.

The installer or vehicle owner must attach the yellow sticker with the warning that is supplied with the device at a place in the vehicle that is visible for every user (e.g. on the wardrobe door). More stickers can be obtained from Truma.

Start-up

- Remove the cowl cover.
- Open the gas cylinder and quick-acting valve in the gas supply line.
- Switch on the heater, see

Truma CP plus VarioHeat digital control panel

If the appliance will not be used for some time, replace the cowl cover and close the quick-acting valve in the gas supply line and the gas cylinder.

Room temperature sensor

An external room temperature sensor is installed in the vehicle to measure the room temperature. The vehicle manufacturer determines the position of the sensor individually depending on the type of vehicle. For more details, please refer to your vehicle operating manual.

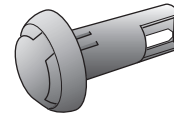


Fig. 1

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

Digital control panel Truma CP plus VarioHeat

The Truma CP plus VarioHeat digital control panel is described in separate operating instructions.

VarioHeat fuses

The fuse is located on the electronic control unit in the appliance and can be replaced only by a professional.

Appliance fuse (F1):
10 AF – quick-acting – (EN 60127-2-3)

The micro fuse must be replaced by a similar fuse.

Disposal of the VarioHeat

The appliance must be disposed of in accordance with the waste laws in the country in which it is used.

Maintenance of the VarioHeat

The VarioHeat requires no maintenance. Truma recommends that the VarioHeat be inspected annually by a qualified service technician.

Heater specifications

Type of gas

Propane

Test point pressure

2.00 kPa (see type plate)

Operating pressure

2.75 kPa (see type plate)

Rated thermal input (gas consumption)

Min. stage: 4.53 MJ/h (90 g/h) ISA

Max. stage: 9.75 MJ/h (193 g/h) ISA

Thermal efficiency

Min. stage: 86 %

Max. stage: 84 %

Air flow rate

85 m³/h - 175 m³/h

Duct static pressure

< 170 Pa (1.7 mbar)

Temperature rise

< 80 °C

Power supply

10.5 - 16 V ~

Power consumption at nominal Voltage 12 V ~

Operating: 0.85 - 3.65 A

Stand-by: 0.004 A

Weight

Heater without periphery:

5.5 kg



Subject to technical changes.

Dimensions (all dimensions are in mm)

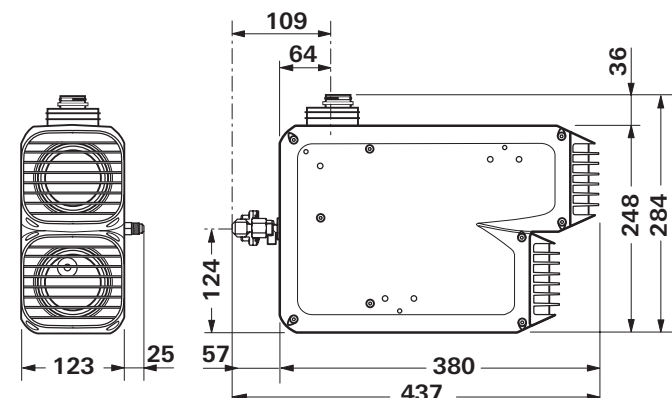


Fig. 33

Truma warranty policy

The warranty is given by Service 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 Service Australia, 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 Service Australia 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 with 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 Service Australia.

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 Service Australia.

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.
- Service Australia / 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.

Troubleshooting guide for Truma VarioHeat

Error	Cause	Rectification
# 2	Flame not detected:	
# 16	– Gas cylinder or quick-acting valve in the gas supply line closed	– Check gas supply and open valves
	– Gas pressure regulation system iced up	– Use EisEx controller heater
	– Butane content in the gas cylinder too high	– Use propane (butane is not suitable for heating especially at temperatures below 10 °C)
	– Combustion air infeed or exhaust gas outlet closed	– Check if openings are blocked (slush, ice, leaves, etc.) and clear if necessary
# 25	– Overvoltage > 16.4 V \equiv	– Check battery voltage and voltage sources, such as charger
# 26	– Undervoltage battery voltage too low < 10 V \equiv	– Charge battery, if necessary, replace old battery
# 27	– Warm air outlets blocked – Circulated air intake blocked	– Remove blockage – Remove blockage
# 28	– Window above cowl open (window switch)	– Close window
# 29	– Imminent undervoltage, battery voltage too low < 10.4 V \equiv	– Charge battery

If these measures do not rectify the error, please contact the nearest Service Australia.

Troubleshooting guide (air conditioning system)

Error code	Cause	Rectification
# 2	Breakdown ice sensor – inside	Check filter and replace if necessary
# 4	Breakdown ice sensor – outside (if fitted)	Keep air inlets / outlets on the roof free of obstructions such as leaves

If these measures do not rectify the error, please contact the nearest Service Australia.



In Australia, always notify the Service Australia if problems are encountered; in other countries the relevant service partners should be contacted (www.truma.com).

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