

## Introduction

Dear Webasto Customer,

Thank you for purchasing the Thermo Pro 90 High Altitude water heater from Webasto. We hope that you will find it gives you reliable comfort for years to come.

The heater Thermo Pro 90 High Altitude works together with the vehicle's heating system to preheat the cab and engine in parking heating mode.

Regular use of the heater can provide the following advantages:

- **Improved safety** thanks to clear all-round vision from the moment you move off.
- **Reduced wear and cold-start emissions** thanks to engine preheating.
- **Achieving the comfort temperature even with engines with low waste heat** thanks to the Heating during Travel option.

We assume that the operation and function has been explained to you by the installing workshop/service point to your complete satisfaction. In these operating instructions we would like to once again provide you with an overview of safe use of the heater.

In order to become familiar with and understand all functions of the heater, you must read this operating instructions carefully.

This ensures that you will be able to use all functions to your satisfaction and will feel safe and completely at ease with its operation.

In case of loss, please contact an authorised Webasto dealer immediately for a replacement document.

Repair or maintenance work not described in this manual may only be carried out by an authorised Webasto dealer.



## Maintenance and Safety Instructions

**Commissioning may not be carried out after the unit has been checked exclusively by Webasto-trained personnel. The unit may only be installed professionally in accordance with the installation instructions.**

Type approval in accordance with the regulations ECE-R 122 (heating) and ECE-R 10 (EMC) is in place for the Thermo Pro 90 High Altitude water heater in the area covered by European Directive 70/156/EEC and/or EC/2007/46 (for new vehicle types from 29/04/2009).

The year of first commissioning is marked on the heater's type label.



Danger of explosion  
and suffocation  
Danger of suffocation

The heater may **not be operated**:

- at filling stations and tank facilities.
- at locations where highly flammable gases or dust can form, or at locations where highly flammable liquids or solid materials are stored (e.g. near fuel, coal and wood dust, grain storage areas, dry grass and leaves, cardboard boxes, paper, etc.).
- in closed rooms (e.g. garages), nor with time pre-selection or the Telearstart function.



The heater may **not**:

- be exposed to storage temperatures above +80°C (+120°C excluding control unit). If this temperature is exceeded, the electronics can be permanently damaged.
- be operated unless the water in the heating circuit contains at least 33% quality antifreeze.

The heater:



- may only be operated with the fuel and the rated voltage specified on the type label.
- must be shut down by switching off immediately and removing the fuse in case of heavy smoking, unusual combustion noises or combustion odours.
- Restarting may not be carried out until after the unit has been checked only by Webasto-trained personnel.
- must be operated for 10 minutes with a cold engine on the lowest blower setting at least once per month.
- must be professionally checked annually, at the latest at the start of the heating period.

Liability claims:



- Failure to observe the operating instructions and the information contained in it will result in a disclaimer of liability by Webasto.

The same applies if repairs are carried out incorrectly or with the use of parts other than genuine spare parts. This will result in the invalidation of the type approval for the heater and therefore of its general operating licence/EC type approval.

- Liability claims can only be asserted for proven compliance with the maintenance and safety instructions by the applicant.

# Operating Heater

Before switching on the heater (with the ignition on), the vehicle heating system should be set to "warm" and the vehicle heating blower should be set to the slowest setting (lower power consumption). Depending on the type of vehicle, the air-conditioning system can perform these settings automatically or partly autonomously. Please ask your specialist dealer to explain the optimum settings.

## Heater operation:

If the heater is switched on with a cold engine, the heater starts up in a low load range and then increases the power. Depending on temperature, this process can take approx. 2 minutes. The coolant temperature is controlled automatically throughout operation. The heater can also be switched on while travelling. The vehicle blower is only switched on when the coolant temperature is at around 30°C, avoiding unnecessary energy consumption. There is thus a delay in starting the vehicle blower, depending on the temperature. When switching off the heater, a cooling afterrunning period is initiated; this lasts approx. 90 s.

**If there is a malfunction, the heater will not switch the fuel pump on for safety reasons. In order to protect the batteries, the heater has an undervoltage trip. In order to ensure that the batteries are recharged while travelling, follow this rule of thumb: the travelling time should be greater than or equal to the preheating time.**

## Use of residual heat

### – Activation:

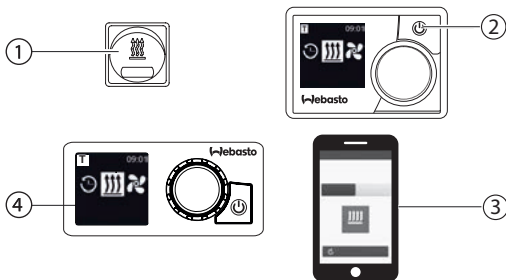
Use of residual heat is only activated when the heater is switched on. This is a fully automatic function that is activated when the engine is warm; it is used to conserve energy. Every time the heater is switched on, before the heating process, the heater checks the coolant temperature. If the coolant temperature is above 60°C, use of residual heat is automatically activated. When use of residual heat is activated, the coolant pump for the heater and the vehicle blower are automatically actuated.

### – Deactivation:

Deactivation of the use of residual heat is carried out automatically by the heater control unit.

## Control elements

The Thermo Pro 90 High Altitude can be fitted with various control elements:



- ① Switch
- ② MultiControl or SmartControl
- ③ Telephone (ThermoCall)
- ④ UniControl

A combination of control elements is also possible.

The control elements confirm when the heaters are switched on. A detailed description of each control element is enclosed with the respective control element.

# Malfunctions and troubleshooting

In the event of a malfunction, a malfunction can be displayed, depending on the type of control elements.



- In the case of control elements with display, the malfunction is shown on the display in the form of a fault code made up of a combination of digits and letters.
- In the case of control elements with lights, the malfunction is shown in the form of a flash code. After 5 fast flash pulses, the fault code is output by a sequence of long flash pulses. The long flash pulses must be counted. This number (fault code) provides information to the workshop about the type of malfunction on the heater.

**If a fault code is displayed, please contact your authorised Webasto dealer.** The workshop can use the fault code to narrow down the problem.

The workshop also has the option of carrying out detailed troubleshooting using computer diagnostics.

The heaters may only be repaired by trained personnel.

In multilingual versions the German language is binding.

The telephone number of each country can be found in the Webasto service centre leaflet or the website of the respective Webasto representative of your country.

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