

Operating Instructions

Thermo Pro 90



Introduction

Dear Webasto Customer,

Thank you for choosing the Webasto Thermo Pro 90 Water Heater.
We hope it will provide you with many years of reliable comfort.

The heater Thermo Pro 90 is used in conjunction with the original vehicle heating system for

- cab and engine pre-heating,
- utilisation of residual vehicle engine heat.

The auxiliary heating mode can also be operated with the vehicle engine running.

The ADR function is provided for the 12 V and for the 24 V variant depending on the vehicle's equipment.

We presume that the principle and mode of operation of your new heater has been explained to your complete satisfaction by the workshop/service centre which installed the heater. In these operating instructions we would like to once again provide you with an overview of the safe use of the heater.

To become familiar with and understand all functions of the heater, you must read these operating instructions carefully.

Then you can be sure that you can use all functions to your satisfaction and feel completely comfortable and safe.

If you should lose these instructions, please contact an authorised Webasto dealer immediately to obtain a replacement copy.

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



Maintenance and Safety Instructions

Within the scope of European Directive 70/156/EEC and/or EC/2007/46 (for new vehicle types from 29/04/2009), there is a type approval for the Thermo Pro 90 water heater according to the Directives ECE R-122 (Heater) and ECE R-10 (EMC).

The heater must not be started until the unit has been checked exclusively by personnel duly trained by Webasto.

The unit may only be installed professionally in accordance with the installation instructions.

The year in which the heater was used for the first time must be permanently displayed on the type label by deleting the inapplicable years from the label.



Danger of explosion
and suffocation!

The heater **must not be operated**:

- In filling stations and tank farms.
- At locations at which highly flammable gases or dusts can form, and at locations at which highly flammable liquids or solid materials are stored (e.g. near fuel, coal and wood dust, grain warehouses, dry grass and leaves, cardboard, paper, etc.)
- In enclosed rooms (e.g. garages), not even via the timer or Telestart.



The heater **must not**:

- Be subjected to storage temperatures of more than +120 °C without a control unit and +80 °C with a control unit. Otherwise the electronics may suffer permanent damage.
- Be operated without at least 33 % brand name anti-freeze in the water of the heating circuit.



The heater:

- may only be operated with the fuel specified on the rating plate and at the nominal voltage specified on the rating plate.
- The heater must be taken out of operation by switching it off immediately and removing the fuse if smoke develops, if unusual burning noises are heard or if there is a smell of fuel.
The heater must not be restarted until the unit has been checked exclusively by personnel duly trained by Webasto.
- The heater must be operated for 10 minutes at least once a month, with the engine cold and the fan set to the minimum setting.
- The heater must be inspected every year by a specialist at the beginning of the heating season or earlier.



Liability:

- Non-compliance with the operating instructions and the warnings contained therein will lead to the exclusion of all liability by Webasto.
The same also applies if repairs are not undertaken by professionals or without using genuine spare parts. This invalidates the type approval for the heater and its homologation/EC type permit.
- Claims can only be made if it can be verified that the claimant has complied with the servicing and safety instructions.

Operation of the heater

Before switching on the heater, the vehicle heater must be set to "hot", and the vehicle heater fan must be set to the slowest speed (reduced current consumption)!

For ADR vehicles only:

The Thermo Pro 90 heater is switched on and off manually with a switch. The use of automatic control systems is prohibited. In class FL vehicles these heaters must not be used during loading and unloading procedures or at the loading points. For this purpose, the alternator signal (alternator) and the auxiliary drive signal are queried.

In type FL vehicles the heaters are automatically switched off and the maximum ADR run-on time is 40 sec. in accordance with the applicable legal requirements.

An ADR run-on takes place when:

- the alternator signal (D+, alternator) is eliminated or
- the auxiliary drive signal (e.g. pumping device) is active.

After the ADR run-on is completed, the control unit is in ADR lock-out.

The heater can be returned to operation by switching the "ON/OFF" switch off and then on again. This does not apply as long as the vehicle's pumping device is operating. The ADR lock-out is not cancelled when the "ON/OFF" switch is activated and the operating voltage U_b is removed and then connected again.

The Emergency-Stop switch may only be operated in case of danger, as the heater is then switched off without run-on (overheating possible).

Utilisation of residual heat

Activation:

Each time after switching on the heater but before the heating process, the coolant temperature is checked by the heater. If the coolant temperature is above 60 °C, the residual heat utilisation function is automatically activated. With the residual heat utilisation function active, the circulating pump of the heater and the vehicle fan are automatically operated.

The residual heat utilization function can only be activated from the "OFF" state, i.e. there is no transition from the states "fault lock-out", "ADR lock-out" and "heater lock-out" to the "residual heat utilisation" state.

Deactivation:

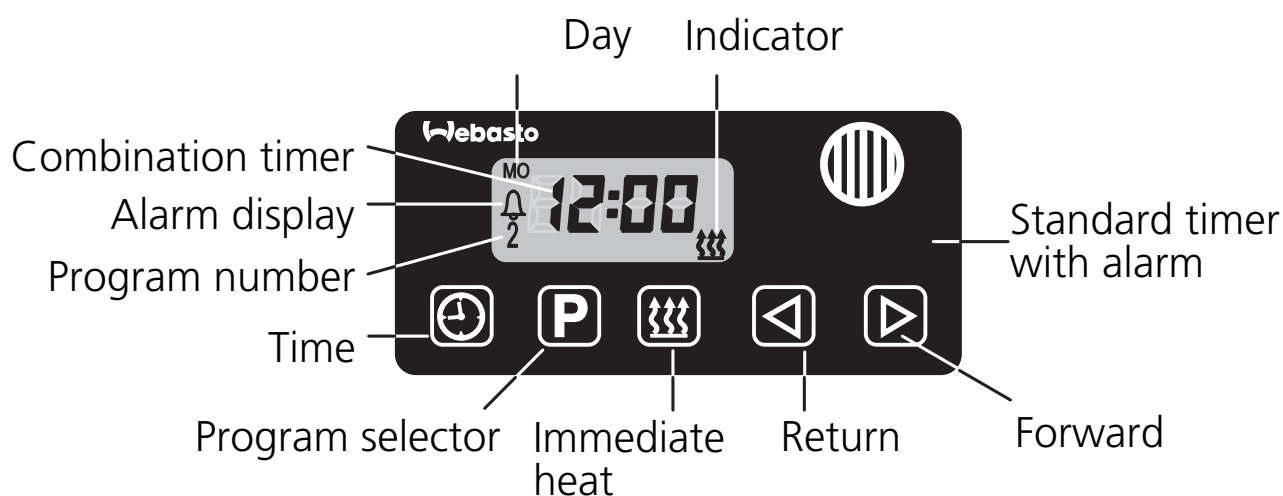
The utilisation of residual heat is deactivated:

- a) If the lower operating voltage criteria is met
- b) If the exit temperature of the coolant is less than 40 °C
- c) If the heater is switched off

If when the residual heat utilisation function is activated or during its use the criterion a) or c) is met, then there is a transition to the "OFF" state.

If criterion b is met during the activation or the use of the residual heat utilisation function, then the heater starts automatically.

Standard timer



General information

The standard timer allows the heater start time to be selected for a period of up to seven days. Three cut-in times can be programmed, although only one of them may be activated.

The standard timer is equipped with a wake-up function.

When the ignition is switched on the timer shows the current time and the day. When the heater is operating, the display and the buttons are lit.

When the timer is connected to the power supply all the symbols in the display will flash. The time and day must be set.

Operation

The operation of the timer is designed such that all the flashing symbols can be adjusted using the ◀ and ▶ buttons. If no button is pressed for five seconds the displayed time is saved. If the ◀ and ▶ buttons are pressed for longer than two seconds, they will switch to high speed adjustment.

If the ignition is switched off whilst the heater is in immediate heating mode, a remaining operating time of 15 minutes will appear on the display and the heater will continue to operate.

Switch on

Manual: by pressing the 🔥 button (immediate heat)

Automatic: By programming the start time.




Switch off

Manual: by pressing the  button (immediate heat)

Automatic: by programming the switch-on duration

With running heater: by setting the remaining operating time.




Set time/date


Press the  button for more than two seconds - the time flashes - set the time using the  and  buttons - the day flashes - set the day.

View time



Ignition off: press  button.

Program start time

Press the  button - program number flashes - set the start time using the  and  buttons - the day flashes - set the day.

If you press the  button several times, you can set the program numbers 2 and 3 or go to the time mode.



View/Delete selected times

Press  button repeatedly until the desired program number is displayed. To delete the selected time, press the  button repeatedly until the time is displayed, with no program number.

Program operating time





The heater must be switched off. Press the  button for three seconds - the operating duration flashes - set the required operating duration using the  and  buttons (10 to 120 minutes).

Set remaining time

Set the required remaining time (1 to 120 minutes) using the  and  buttons. The remaining time is the time that the heater will continue to operate. It can only be changed whilst the heater is operating and the ignition is off.



Set wake-up time

A wake-up time can only be programmed with the standard timer.

The wake-up time is not linked to a day of the week. Press the  button repeatedly until the bell symbol  appears in the display. Then set the desired wake-up time with the  and  button.

The timer switches off after 5 minutes or when one of the buttons is pressed.

View/delete wake-up time

Press the  button repeatedly until the bell symbol  appears in the display and read off the wake-up time.

Delete the wake-up time by pressing the  button repeatedly until the bell symbol  is no longer visible in the display.

Remote control

Possible using an external optional immediate heat button.

Vehicles with ADR equipment

It is not possible to set a time on ADR vehicles. The remaining time will be shown on the display whilst the heater is operating. The time can be adjusted. The alarm can be programmed with the standard timer.

Faults and troubleshooting

The detailed troubleshooting procedure is shown in the workshop manual.

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