

Introduction

Dear Webasto Customer,

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

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 are type approvals for the Thermo 50 water heater according to the Directives ECE R 122 (Heater) and ECE R 10 03 (EMC).

The unit must be installed in accordance with the enclosed installation instructions. The installation must be checked in accordance with statutory installation provisions. Refer to the installation instructions for more details.

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.

When installing the Thermo 50 heater in vehicles for transporting dangerous goods, the requirements of the ADR in the respectively valid version must also be complied with in addition to the German Road Traffic Regulations (StVZO).



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 Telearstart.



The heater **must not**:

- be exposed to temperatures of more than 120 °C. Otherwise the electronics may suffer permanent damage.
- be operated without at least 20 % 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.
- 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.

- must be put into operation for 10 minutes at least once a month with the engine cold and the fan set to the minimum setting.
- must be inspected 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/ECE 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 Thermo 50-ADR only:

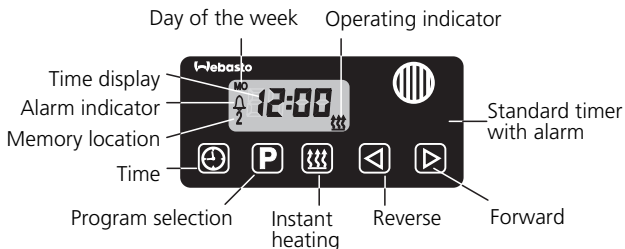
The heater is started up by means of the switch or the 'instant heat' button on the digital timer.

A brief 40-second after-run period is initiated automatically if

- the vehicle engine is shut off,
- a pumping device is put into operation.

Subsequently, the control unit is in its "fault lock-out" mode. Before the heater can be re-started it must be switched off by means of the switch or the 'instant heat' button on the digital timer. The Emergency-Stop switch may only be operated in case of danger, as the heater is then switched off without run-on (overheating possible).

Standard timer



General information

The standard timer allows the heater start time to be selected for a period of up to seven days. It is possible to program 3 different starting times, only one of which can be activated.

The standard digital timer features a wakeup alarm function.

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

After the power supply has been connected, all symbols on the display will flash. The current time and weekday must be set.

Operation

The timer can be operated in that all flashing symbols can be adjusted by means of 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.

Switching on

- Manually: by pressing the  button (immediate heat)
- Automatically: By programming the start time.

Switching off

- Manually: by pressing the  button (immediate heat)
- Automatically: by programming the switch-on duration
- With running heater: by setting the remaining operating time.

Setting time/day of the week

Press the  button for more than 2 seconds - time of the day is flashing - and set the clock using the  and  buttons. Day of the week is flashing - adjust the day of the week.

Viewing time

With ignition switched off: press the  button.

Programming heater starting time

Press the  button - the memory location is flashing - using the  and  buttons set start of the heater operating time.

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.

Programming duration of operating time

The heater must be switched off. Press the  button for 3 seconds - operating time is flashing - and set the desired operating time (10 to 120 minutes) using the  and  button

Setting remaining operating time

Set the desired remaining operating time (1 to 120 minutes) using the  and  buttons. The remaining operating time refers to the time the heater still continues to remain in operation. It can only be changed whilst the heater is operating and the ignition is off.

Setting wakeup time

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

The wakeup time is not bound to a specific day of the week. Press the  button repeatedly until the bell symbol  appears in the display. Set the desired wakeup time using the  and  buttons.

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

Viewing/deleting 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

On ADR vehicles it is not possible to program a preset starting time. The remaining time is shown on the display while the heater is in operation. The clock can be set. The alarm clock function can be programmed on the standard digital timer.

Action in the event of faults

If a fault occurs, check that the fuses and plug connections are in perfect condition and secure.

In the event of a malfunction, the heater will shut down in its fault lock-out mode. Following any fault lock-out condition, coded flashing signals will be emitted by the operation indicator, or a fault code will appear on the display of the timer. For details on the meaning of the fault code, refer to the last page.

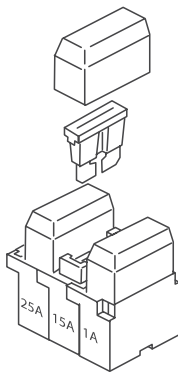
Before you consult a Webasto service center, try to deactivate the fault lock-out by switching the heater off and back on again. A fault lock-out condition may also be reset by briefly removing the 15 amp fuse (blue) with the heater in the switched-on state.

Note:

The heater will start operating as soon as the fuse is replaced!



If this measure does not eliminate the fault, please contact an authorised Webasto dealer.



Fault code output

When equipped with the standard timer, a fault output appears in the display after a fault occurs.

Note:

- ! The type of fault is output with a flashing code via the operating indicator lamp during the heater run-on time during operation with the switch.
- After five short signals, the long flashing pulses are counted.

The flashing pulses match the number in the table below.

F 01	No start-up
F 02	Flame extinguished (at least > 5)
F 03	Undervoltage or overvoltage
F 04	Premature flame detection
F 05	Circulation pump interruption or circulation pump short circuit
F 06	Temperature sensor interruption or temperature sensor short-circuit
F 07	Metering pump interruption or metering pump short-circuit
F 08	Fan motor interruption or fan motor short-circuit or incorrect fan motor speed
F 09	Glow plug/ flame monitor interruption or glow plug/ flame monitor short-circuit
F 10	Overheating

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