

# Operating Instructions Water Heater Thermo 50



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## General information

Dear Webasto user

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. This manual summarizes the main points of importance for using the heaters Thermo 50.

## Maintenance and safety instructions

The water heaters Thermo 50 have been type-tested and approved in accordance with Directives 2001/56/EC (heaters) and 72/245/EEC (EMC) within the territory governed by European Directive 70/156/EEC.

The units must be installed in accordance with the enclosed installation instructions. The equipment 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 is used for the first time must be permanently marked on the rating plate by removing the inapplicable year figures.

If the Thermo 50 heater is installed in hazchem vehicles, then not only the requirements of the motor vehicle construction and use regulations but also the provisions of the relevant edition of ADR (Accord européen relatif au transport international des marchandises dangereuses par route) must be complied with.

### The heater must not be operated:



Danger of explosion and suffocation!

- In filling stations and tank farms.
- In places where explosive vapours or dust may build up (e.g. near fuel, coal, wood dust or cereal stores).
- In enclosed rooms (e.g. garages), not even via the timer or Telestart.

### The heater must not:



- be exposed to temperatures of more than 120 °C (storage temperature), otherwise the electronics may suffer permanent damage.
- be operated without at least 20% brandname anti-freeze in the water of the heating circuit.

### The heater must:



- be operated with the fuel specified on the rating plate and at the nominal voltage specified on the rating plate.
- be taken out of operation by 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 by personnel duly trained by Webasto.
- be operated for 10 minutes at least once per month, with the engine cold and the fan set to the minimum setting. The heater must be inspected by a specialist at the beginning of the heating season or earlier.



- Non-compliance with the installation 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.
- Warranty claims may only be asserted providing the claimant is able to demonstrate that the maintenance and safety instructions have been followed.

## Operation of the heater

Before switching the heater on, set the vehicle heating system to the "warm" position and the vehicle heater fan to the lowest setting (less power consumption)!

### Applicable to Thermo 50-TRS/ADR only:

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

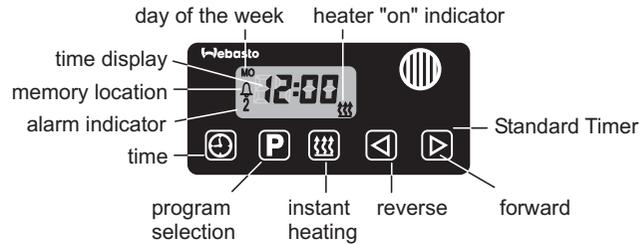
A brief 40-second after-run period is initiated automatically if

- 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 restarted it must be switched off by means of the switch or the 'instant heat' button on the digital timer.

The disconnect switch (Emergency Stop switch) may only be actuated in an emergency situation since this will shut the heater down without any after-run being performed (danger of overheating).

## Standard Timer



<b>General</b>	<p>The standard digital timer enables you to preset the start of the heater operation up to 7 days in advance. It is possible to program 3 different starting times, only one of which can be activated.</p> <p>The standard digital timer features a wakeup alarm function. When the ignition switched on, the timer displays the current time and the day of the week. When the heater is switched on, the display and the buttons are illuminated.</p> <p>After the power supply has been connected, all symbols on the display will flash. The current time and weekday must be set.</p>
<b>Operation</b>	<p>The timer can be operated in that all flashing symbols can be adjusted by means of the <b>◀</b> and <b>▶</b> buttons. If the buttons are not pressed within 5 seconds, the time displayed will be stored. If the <b>◀</b> and <b>▶</b> buttons are pressed for more than 2 seconds, the fast time-setting mode is activated.</p> <p>If the ignition is switched off while the heater is operating in the continuous mode, the remaining operating time of 15 minutes is displayed and the heater continues to operate for this period of time.</p>

<b>Switching the heater on</b>	<p>Manually: by pressing the button <b>⏻</b> (continuous heating mode)</p> <p>Automatically: by programming the heater starting time</p>
<b>Switching the heater off</b>	<p>Manually: by pressing the button <b>⏻</b></p> <p>Automatically: after the programmed operating time has elapsed</p> <p>With the heater running: by programming the remaining operating time</p>
<b>Setting time/ day of the week</b>	<p>Press the <b>⏻</b> button for more than 2 seconds - time of the day is flashing - and set the clock using the <b>◀</b> and <b>▶</b> buttons. Day of the week is flashing - adjust the day of the week.</p>
<b>Viewing the time</b>	<p>With the ignition switched off: press the <b>⏻</b> button</p>
<b>Programming heater starting time</b>	<p>Press the <b>P</b> button - the memory location is flashing - using the <b>◀</b> and <b>▶</b> buttons set start of the heater operating time. Day of the week is flashing - set the day of the week. By repeatedly pressing the <b>P</b> button, memory locations 2 and 3 can be programmed or the time display mode can be reached.</p>
<b>Recalling/ erasing preset times</b>	<p>Repeatedly press the <b>P</b> button until the desired memory location is displayed. To erase the preset time, press the <b>P</b> button several times until the time of the day is displayed instead of the memory</p>
<b>Programming duration of operating time</b>	<p>The heater must be switched off. Press the <b>◀</b> button for 3 seconds - operating time is flashing - and set the desired operating time (10 to 120 minutes) using the <b>◀</b> and <b>▶</b> buttons.</p>
<b>Setting the remaining operating time</b>	<p>Set the desired remaining operating time (1 to 120 minutes) using the <b>◀</b> and <b>▶</b> buttons. The remaining operating time refers to the time the heater still continues to remain in operation. It can only be changed while the heater is in operation and the ignition switched off.</p>
<b>Setting the wakeup time</b>	<p>A wakeup time can only be programmed on the standard digital timer. The wakeup time is not bound to a specific day of the week.</p> <p>Repeatedly press the <b>P</b> button until the bell symbol <b>🔔</b> appears on the display. Set the desired wakeup time using the <b>◀</b> and <b>▶</b> buttons. The alarm clock turns off after 5 minutes or when one of the buttons is pressed.</p>
<b>Recalling/ erasing the wakeup time</b>	<p>Repeatedly press the <b>P</b> button until the bell symbol <b>🔔</b> appears on the display - read off wakeup time. To erase the wakeup time: press the <b>P</b> button until the bell symbol <b>🔔</b> is no longer visible on the display.</p>
<b>Remote control</b>	<p>Possible by means of an optional external "instant heating" button</p>
<b>Vehicles with TRS equipment</b>	<p>On TRS/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.</p>

## Troubleshooting

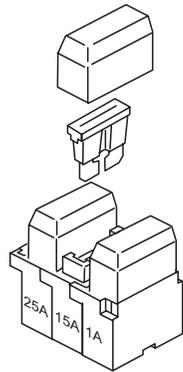
In the event of a malfunction, fuses and electrical connections should be checked for proper condition and security.

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 action does not correct the malfunction, consult your authorised Webasto dealer



## Fault Code Display

After the occurrence of a malfunction, the fault is indicated on the display of the digital timer if the heater is equipped with a standard digital timer.

## Fault Codes on the Display of the Combination Timer

### NOTE:

If the heater is activated by the switch, the types of malfunctions are indicated by coded flashing signals via the operation indicator light during the after-run period of the heater. The coded flashing signals correspond to the numbers 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	Circulating 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	Pencil-type glow plug/flame detector interruption or pencil-type glow plug/flame detector short-circuit
F 10	Overheating

Subject to changes