

# Operating Instructions

Thermo Top C Motorcaravan  
Telestart T91 for Motorcaravan

## General information

Dear Webasto customer!

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 use of the Thermo Top C Motorcaravan heater as well as the Telestart T91 hand-held transmitter for motorcaravans.

## Maintenance and safety instructions

The Thermo Top C Motorcaravan water heaters have been type-tested and approved in accordance with Directives ECE R-122 (Heating) and ECE R-10 (EMC) within the territory governed by European Directives 70/156/EEC and/or EC/2007/46 (for new vehicle types from 29/04/2009).

The units must be installed in accordance with the enclosed installation instructions.



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 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:

- 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 2 years 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.

# Operation of the heater

The heater can be started via the digital timer or Telestart, depending on its configuration. Set the vehicle heating to "warm" before switching on the heater. The vehicle's heater fan should be set to the lowest possible level if the heater is to be used in continuous operation (e. g. stage 1 in the DUCATO). This ensures the electrical system uses the optimum current level. We recommend increasing the fan setting for more rapid heating. The vehicle's heater nozzles can be set as desired.

## Engine/cabin change over switch:

Engine symbol  pressed:

- The heater additionally heats the vehicle's engine.  
However, it is still possible to heat the body of the vehicle.
- The heating duration is limited to max. 60/120 minutes (always 60 minutes when switched on with the timer, between 10 and 120 minutes can be selected when switched on with Telestart).

Cabin symbol  pressed:

- The heater predominantly heats the front area of the vehicle body.
- The heating duration is unlimited, irrespective of the control used. This means continuous heater operation is possible, as is usual in motorcaravans.

### NOTE:

As a rule, the heater is also allowed to be used when driving, e. g. as a supplementary heat source if the heat provided by the engine is inadequate.

### CAUTION:

When you leave the motorcaravan, consider whether you want to leave the heater switched on until your return. If you do not, then switch off the heater manually.

# Digital timer 3-times

Heating display

Display lighting

Program number display

Symbol for setting / viewing the time

Time button

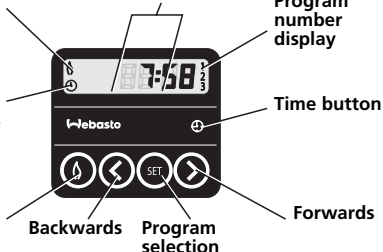
Immediate heating

Backwards

Program selection

Forwards

**Note:**  
Remember to alter the time for summer and winter time!



## General Information

The time for starting heating operation can be preset precisely anywhere between "1 minute" and "24 hours". Three starts can be programmed, but only one can be activated. The operating time is either limited to 60 minutes or is unlimited, depending on the setting of the engine/cabin changeover switch.

## Switching on

manually: Press the "Immediate heating" button 

automatic: By pre-programming the start of heating

The program number is shown on the display and the display lights up.



## Switching off

manually: Press the "Immediate heating" button 

automatic: By time limit

The display goes out.

## Setting the time

Press the "Time" button  followed by the "Forward"  or "Backwards"  button.

## Checking the time

Press the "Time" button .


## Programming the start of heating

Press the  button.


Press the button "Forwards"  or "Backwards"  within 10 seconds until the required time for starting heating operation is displayed.

If a different program number is required, the  button must be pressed within 10 seconds.

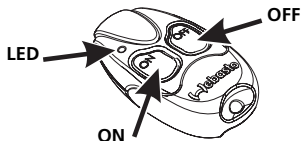
## Deleting the program

Briefly press the  button.

## Selecting the programmed time

Press the  button within 10 seconds until the program number with the required preset time is displayed.

# Telestart T91



## General information

With the Webasto Telestart T91 for Motorcaravan, the Webasto Thermo Top C Motorcaravan heater can be switched on and off wirelessly from a distance up to 600 m.

The LED on the Telestart flashes to indicate that the signal has been received. The receiver limits the operating time after the heater has been switched on by the transmitter. The maximum range is only possible across an open space. In built-up areas the range will be less. Note: The battery used is fully operational, however is subject to function-dependent discharging when installed. Therefore, we expressly recommend observing the information on page 9 (section "Procedure when not using for longer periods") when the Telestart is not used for longer periods.



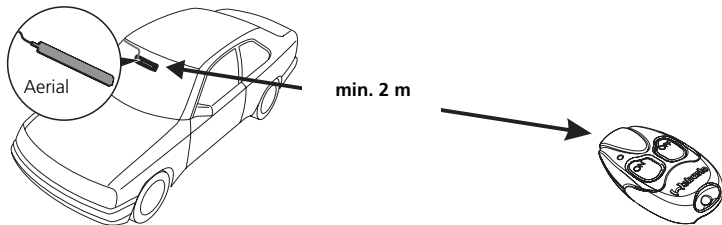
### NOTE: When

- programming a Telestart hand-held transmitter
- switching the heater on and off

**make sure the distance between the Telestart hand-held transmitter and the aerial in the vehicle is at least 2 m**

**or**

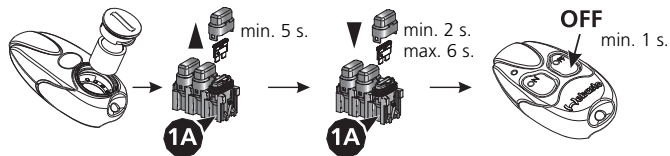
**use your hand to cover the aerial of the hand-held transmitter when transmitting!**



## Programming Telestart transmitter

1. Insert the battery in the battery compartment of the transmitter.
2. Remove the 1 A fuse (black) from the heater's fuse holder (voltage interruption of receiver).
3. Wait at least 5 seconds and refit the fuse.
4. After approximately 2 seconds, however within 6 seconds, press the **OFF** button on the transmitter for at least 1 second.
5. Programming is completed.

A maximum of 4 hand-held transmitters can be programmed in this way. During additional programming processes, the "oldest" transmitter will be deleted each time.



## Checking mode

Simultaneously press and hold down the **ON**- and **OFF**-buttons.

LED lights up:

**red** = Heating mode

**green** = Ventilation mode

- NOTE:**
- The ventilation mode (= green) is not available with the Thermo Top C Motorcaravan Heater. If you have activated ventilation mode, switch back to heating mode (= red).



LED extinguishes:

- when the buttons are released, or
- after 10 seconds

## Setting mode

Press the **ON**- and **OFF** buttons simultaneously twice within one second. Upon the second actuation, the LED will change its colour and illuminate until the buttons are released (illuminates for max. 3 seconds).

The new mode is stored when the buttons are released.



**NOTE:**  
Only heating mode is available when using the Telestart T91 for Motorcaravan in conjunction with the Thermo Top C Motorcaravan heater. Ventilation mode does not function.

## Feedback from transmitter upon turning On/Off

The LED on the transmitter lights up for 2 seconds:  
**red** = Heating mode  
**green** = Ventilation mode

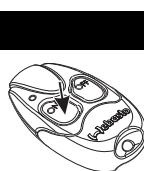
The signal has been received and the heater / vehicle fan switched on or off.

The LED on the transmitter flashes for 2 seconds.

Error during signal transmission.  
Change your location and repeat transmission.

## Switching on the heater

Hold the transmitter with the aerial upright and press the **ON** button until the LED lights up (approx. 1 second). The Telestart receiver in the vehicle transmits a confirmation of the reception (see overview above: "Feedback"). Then the forwarding of the signal to the heater is confirmed with brief flashing signals (every 2 seconds).



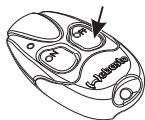
The operation indicator extinguishes:  
– After the preset operating time has elapsed  
– After switching off with Telestart.

**NOTE:**  
Set the vehicle heating to "warm" before switching on the heater. The vehicle's heater fan should be set to the lowest possible level if the heater is to be used in continuous operation (e. g. stage 1 in the DUCATO). This ensures the electrical system uses the optimum current level. We recommend increasing the fan setting for more rapid heating.

## Switching off the heater

### with the hand-held transmitter:

Hold the transmitter with the aerial upright and press the **OFF** button until the LED lights up (approx. 1 second).



### with the digital timer:

Press the immediate heat button twice.

## Checking and setting operating time

The operating time of the heater or the vehicle's fan can be preset on the transmitter in increments of 10 minutes. The operating time is factory-set at 30 minutes.

## Checking operating time

Simultaneously briefly press the **ON** and **OFF** button three times consecutively.



### The LED flashes in accordance with the preset operating time.

No. of coded flashing signals	1	2	3	4	5	6
Operating time	10 min.	20 min.	30 min.	40 min.	50 min.	60 min.
No. of coded flashing signals	7	8	9	10	11	12
Operating time	70 min.	80 min.	90 min.	100 min.	110 min.	120 min.

- NOTE:**  
The first coded flashing signal that is emitted immediately upon the third actuation of both buttons has to be included into the count.

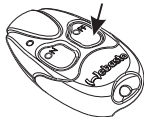
The operating time is either limited to 120 minutes or is unlimited, depending on the setting of the engine/cabin changeover switch.

## Setting operating time

Press the **OFF** button to call up the next operating time.

To store the setting:

- do not actuate any button for 10 seconds, or
- actuate the ON button.



## Returning to factory setting

Simultaneously press the **ON** and **OFF** button for at least 15 seconds.



### NOTE:

Colour changes on the LED which occur in the process can be ignored.



Factory setting:

- Mode: Heating
- Operating time: 30 minutes

## Procedure when not using for longer periods

When the hand-held transmitter is not used for longer periods, we recommend removing the battery from the hand-held transmitter to increase battery life.

### CAUTION:

Do not store in the vehicle, but instead in a dry place at room temperature.

Returning to use:

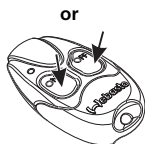
1. Insert the battery in the battery compartment of the transmitter.
2. Press the **OFF** button six times for 2 seconds at intervals of approx. 2 seconds.
3. Observe a waiting time of approx. two minutes.

If the hand-held transmitter does not function after returning it to use, then an operating test of the battery (see point "Checking battery") must be carried out.

## Checking battery

Press the **ON** or **OFF** button.

LED	Battery	Action
lights up for 2 seconds in green or red	full	Battery OK <b>ATTENTION:</b> Heater could be activated or deactivated in the process.
flashes for 2 seconds in green or red	full	Battery OK <b>ATTENTION:</b> Receiver too far away or transmitter not programmed.
lights up for 2 seconds in orange	almost spent	replace battery as soon as possible or warm up transmitter
flashes orange very quickly for 5 seconds	discharged	Replace battery.
no display	drained	Replace battery.



## Action in the event of faults

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

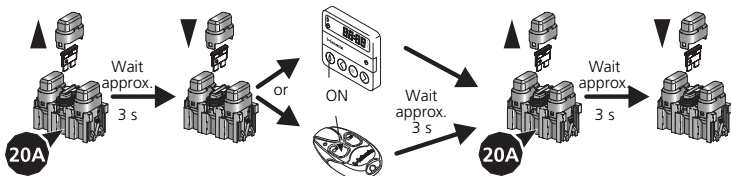
When a fault occurs, the heater switches to the fault interlock; an error is not indicated on the digital timer.

Always try to cancel the fault interlock before calling a Webasto service centre.

The following faults can be remedied directly by the user:


Fault description	Possible cause	Remedy
Heater switches off automatically (= fault lock-out)	No combustion after starting and restarting. Flame goes out during operation.	Switch off heater and switch on again (not more than twice).
Heater does not switch on.	Heater is without electric power.	Check power supply to heater and ground connections
Heater switches off during operation (= fault lock-out).	Heater has overheated due to lack of coolant.	Refill coolant as directed by manufacturer.

## To cancel the fault interlock



Interrupt power supply by removing the 20 A fuse (yellow) in the heater wiring harness

Refit the fuse.

Briefly press ON button on transmitter or press  button on digital timer

Interrupt power supply by removing the 20 A fuse (yellow) in the heater wiring harness

Refit the fuse. The heater switches on again.



### NOTE:

The heater switches on again when the fuse is refitted.

Please contact a Webasto service centre if the fault cannot be remedied in this way.

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