

Operating Instructions

Thermo Top Evo / Evo Smart

Water Heater



English

This document is valid for:

Thermo Top Evo - B/D

Thermo Top Evo RV/HD - D

Thermo Top Evo Smart - B/D

Thermo Top Evo Smart RV/HD - B/D

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1 General information

1.1 Purpose of the document

These Operating Instructions provide the user with information on the safe operation of the Thermo Top Evo and Thermo Top Evo Smart.



NOTE

The actual availability of these functions depends on each installed heater.



NOTE

Carefully read through and follow the heater operating instructions and the safety information contained therein.

1.2 Using this document

- ✓ Before operating the Thermo Top Evo and Thermo Top Evo Smart, carefully read these operating instructions as well as the operating instructions for the control element.
- ✓ Hand these operating instructions on to the following owner or user of the Thermo Top Evo and Thermo Top Evo Smart.

To access further documents use one of the following options:

The Webasto Dealer Portal

(<https://dealers.webasto.com>)

Operating instructions are available in various languages at: <https://www.webasto-comfort.com/de-de/produktuebersicht/#!>*

1.3 Warranty and liability

Webasto shall not assume liability for defects or damages that are the result of disregarding the installation and operating instructions. This liability exclusion particularly applies to:

- Installation or maintenance by untrained personnel.
- Improper use.
- Repairs not carried out by a Webasto service workshop.
- Use of non-genuine parts.
- Conversion of the unit without permission from Webasto.
- Mechanical damage to the equipment.
- Failure to comply with service instructions.



DANGER

Always switch off the heater before refueling.

1.4 Use of symbols and highlighting



DANGER

This signal word denotes a hazard with a high degree of risk which, if not avoided, may lead to death or serious injury.



WARNING

This signal word denotes a hazard with a moderate degree of risk which, if not avoided, may lead to minor or moderate injury.



CAUTION

This signal word denotes a hazard with a low degree of risk which, if not avoided, will lead to minor or moderate injury.



NOTE

This signal word denotes a Special Technical Feature or (if not observed) potential damage to the product.



Refers to separate documents which are enclosed or can be requested from Webasto.



Requirements for the following necessary action.

2 Safety

2.1 Intended use



NOTE

The heater must not be used for safety-related purposes. It serves to provide comfort.

The heater works independently of the vehicle engine and is integrated in the cooling system and the electrical system of the vehicle.

The heater is approved for the following applications:

- Trucks, buses in EU vehicle classes **M**, **N** and **O**
- Agriculture and forestry machines
- Construction vehicles
- Earth-moving machinery
- Caravans, motor homes, boats, pleasure craft
- Vehicles that travel only within a delimited area (e.g. airport)

2.2 General safety information

2.2.1 Safety information on operation



DANGER

Risk of injury from the defective unit

Do not operate a defective Thermo Top Evo, Thermo Top Evo Smart and put it out of service by removing the fuse:

- prolonged heavy smoke development.
- unusual burner noise.
- smell of fuel.
- permanent fault switch-offs with error messages (flash code).
- damaged heater.
- ▶ Contact a Webasto service workshop.



WARNING

Danger of explosion and suffocation

Do not operate the heater:

- ▶ 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 such as garages that do not have an exhaust extraction unit, especially not with programmed heating start (time preselect or remote start).

 NOTE**Incorrect handling**

- ▶ Protect the heater against mechanical stress (e.g. dropping, impacts or knocks).
- ▶ Do not stand on the heater.
- ▶ Do not place any objects on top of the heater.
- ▶ Avoid shutting down the heater incorrectly during the after-running period. After switching off via the control element, the fan of the heater continues to run.
- ▶ Always switch off the heater via the control element.
- ▶ Do not disconnect from the power supply until the after-running period has elapsed.

2.2.2 Avoiding damage to property **NOTE**

Use suitable Webasto control elements approved for use with the heater.

2.3 Regulations and legal requirements

The heater Thermo Top Evo, Thermo Top Evo Smart has been granted type approval for vehicle classes **M**, **N** and **O** by the regulatory body in accordance with the UN ECE regulations listed below.

ECE R10 Revision 06

ECE R122 Revision 17

(Version valid at 08/2024)

The approval is recognized by the countries listed and marked accordingly in the overview list. The valid certificates and the current overview of countries can be found on the Webasto dealer portal at <https://dealers.webasto.com>.

3 Maintenance and Safety Instructions

The heater may not:

- be subjected to temperatures of more than 120 °C (storage temperature). If this temperature is exceeded, the electronics can be permanently damaged.
- unless the water in the heating circuit contains at least 33% of a brand name anti-freeze.

The heater:

- may only be operated with the fuel specified on the type label.
- The heater is set in the factory with a CO₂ value for operation at heights between 0 and 1500 m above sea level. Continuous operation at more than 1,500 m above NHN may lead to a high level of production of smoke and soot. To prevent the device from failing and being put at risk, the CO₂ value setting must be adjusted by Webasto's installation partner.

4 Operation



Observe additional requirements from the operating and installation instructions for the Thermo Top Evo Smart and the control element.

4.1 Heater operation

**NOTE**

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. In order to protect the batteries, the heater has an undervoltage trip.

4.2 Switching the heater on after automatic switch-off

**NOTE****Possible loss of heating function**

Following an automatic switch-off, the heater may need to be manually switched back on.

The heater can be restarted by switching it off and on again using the control element.

5 Fuel

Suitable fuels:

- Thermo Top Evo, Thermo Top Evo Smart – D: diesel: B7 as per EN 590; HVO as per DIN EN 15940
- Thermo Top Evo, Thermo Top Evo Smart – B: petrol: E0-E10 as per EN 228; E85 as per DIN 51625

When switching to cold-resistant fuels, the heater must be run in operation for approx. 15 minutes so that the fuel line and fuel pump are also filled with new fuel.

**DANGER**

Fuel leak if fuel line is damaged or components are faulty.

Outcome: Risk of fire.

- ▶ If the fuel line is cut through or incorrectly fitted or if components fail, there is a risk of leaking fuel.

6 Coolant



Overheating caused by insufficient coolant or defective coolant flow

- ▶ Check coolant system (heater and vehicle).
- ▶ Contact a Webasto service workshop.

7 Combustion air

**DANGER**

Danger of fire

Flammable materials or liquids in the combustion air flow.

- ▶ Keep combustion air flow clear.

8 Exhaust

**WARNING**

Blockages

Check combustion air and exhaust system for blockages.

A blocked exhaust system or combustion air system can cause unsafe status of the heater!

9 Maintenance

Webasto recommends having the heating system maintained and inspected by an authorized Webasto service workshop at regular intervals, at least every 2 years.

- In order to ensure that the heater is ready for operation at all times, it is recommended that the heater is switched on once a month and allowed to run for at least 20 minutes, even in times of infrequent use (summer).
- The heater must be switched off prior to cleaning.
- Carefully clean the heater using water and a cleaning agent suitable for cleaning vehicles.

**NOTE**

The Thermo Top Evo, Thermo Top Evo Smart must **NOT** be cleaned with a high-pressure cleaner or with compressed air.

10 Malfunctions

A malfunction is indicated by means of a flash code or on the control element display:

- On control elements with display, the fault codes F01 to F15 are output via the display. The fault codes F16 to F19 are shown with “- -”.
- On control elements without a display (analogue), the fault code is indicated in the form of a flash pulse. The pulses are short or long. The number of long pulses corresponds to the number of the fault code. F00 is just rapid flashing.
- In event of an error occurring, check the fuse and plug connectors.
- If the fault cannot be rectified by the measure described, contact your Webasto service workshop.

**NOTE**

Independent maintenance work, particularly using flammable gases or liquids such as accelerators, is forbidden.

Code	Hex code	Possible cause	Action
F01	H02 / H4E / H39 / H82	No start	Switching the heater off and on
F02	H2F / H83	Flame goes out during operation	
F03	H04 / H4C / H84	On-board power supply too low / undervoltage or overvoltage	• Charge the vehicle battery. • Switching the heater off and on.
F10	H37 / H86 / H06 / H58	Heater overheats	• Check coolant level. • Switch off heater. • Allow the heater to cool down. • Switch on the heater.
-	-	On vehicles for transporting hazardous goods: Vehicle engine switched off / pumping device in operation	• Make sure that the pumping device is out of operation. • Wait until the heater switches to fault lock-out. • Switch the heater off and on via the control element.
-	-	Heater emits black smoke	

Code	Hex code	Possible cause	Action
-	-	Combustion air and exhaust gas guiding blocked	Check combustion air and exhaust gas routing for free passage.

In case of any other error messages not listed, contact the Webasto service workshop.

11 Service signal

In the event of service information, the service signal is shown via the control element when the heater is switched on.

- In the case of the MultiControl / SmartControl control element, a service symbol is displayed.
- On control elements without display: indicator lamp flashes for 60 s: on for 1 s, off for 1 s.
- Have the heater checked by a professional.

The heater can continue to be used with limited operation.

12 Disposal end of life

The Thermo Top Evo, Thermo Top Evo Smart must not be disposed of in domestic waste.

- Observe the regional regulations for disposal of electronic products.

13 Service and customer services

The device is registered during installation by the Webasto service workshop. You will receive the registration document.

Pass the registration document on to the next owner or user of the device.

Do you have any technical questions or problems with the device?

National phone numbers of our representatives are provided on:

<https://www.webasto-group.com/en/the-company/locations-worldwide/>



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