

Operating Instructions

Thermo Top Pro 120 | 150

Water Heater



English

Contents

1	About this document	3
1.1	Purpose of the document	3
1.2	Using this document	3
1.3	Warranty and liability	3
1.4	Use of symbols and highlighting	3
2	Safety	3
2.1	Intended use	3
2.2	General safety information	3
2.3	Regulations and legal requirements	4
3	Operation	4
3.1	Control elements	4
3.2	Setting up a vehicle heating system	4
3.3	Switch the heater on and off	4
3.4	Heater operation	5
3.5	Using the heater in hazardous material vehicles (ADR)	5
3.6	Switching the heater on after automatic switch-off ...	5
3.7	Use of residual heat	5
4	Fuel.....	5
4.1	Converting from operation with summer diesel to winter diesel	5
5	Coolant	5
6	Combustion air	5
7	Exhaust.....	5
8	Cleaning	5
9	Malfunctions	5
10	Service signal	6
11	Maintenance.....	6
12	Disposal end of live.....	6
13	Service and customer services	6
14	Declarations of conformity	7
15	Type testing and approvals.....	9

1 About this document

1.1 Purpose of the document

These operating instructions provide the user with information on the safe operation of the Thermo Top Pro 120 | 150.



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 Pro 120 | 150, 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 Pro 120 | 150.

To access further documents use one of the following options:

The Webasto Dealer Portal

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

Webasto Service app (for installation)

To download this app:

- scan the QR code below or



- go to:

<https://apps.apple.com/> (Apple App Store) or

<https://play.google.com/> (Google Play Store) as appropriate.

To use the Webasto Service App and access the online Webasto technical documentation, scan the QR code or the barcode on your Webasto product box.

Operating instructions are also available from the Webasto website at www.webasto.com. These instructions are available in a variety of other national languages on the Webasto website.

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 refuelling.

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

The heater Thermo Top Pro 120 | 150 is approved for the following applications:

- Trucks, buses in vehicle classes **M**, **N** and **O**.
See also: https://ec.europa.eu/growth/sectors/automotive/vehicle-categories_en.
- Construction machines
- Agriculture and forestry machines
- Earth-moving machinery
- Industrial trucks
- Caravans, motor homes, boats, pleasure craft
- Vehicles that can be used in residential, commercial, light-industrial and industrial environments

2.2 General safety information

2.2.1 Safety information on operation



DANGER

Danger of explosion

In environments with combustible vapours, flammable dust and hazardous goods (e.g., petrol stations, tank facilities, fuel store, coal bunkers, timber yard or grain warehouses).

- Do not switch on or operate the heater.



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

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

2.2.2 Avoiding damage to property**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.

**DANGER****Risk of injury from the defective unit**

Do not operate a defective Thermo Top Pro 120 | 150 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.

**DANGER****Risk of explosion from explosive and flammable hazardous goods**

For hazardous material vehicles, restriction of the heater operation (ADR) is required to prevent severe burns.

- ▶ Do not operate the heater at hazardous material loading points.
- ▶ Do not operate the heater when loading and unloading hazardous materials.

**NOTE**

After switching off via the control element, the heater switches to a short controlled run-on phase. Switching off incorrectly, without after-run, can cause damage to the Thermo Top Pro 120 | 150.

- ▶ Always switch off the Thermo Top Pro 120 | 150 via the control element.

**NOTE**

After switching off via the control element, the fan of the heater continues to run (shortened to 40 s for ADR). Switching off incorrectly, without after-run, can cause damage to the Thermo Top Pro 120 | 150.

- ▶ Always switch off the heater via the control element.
- ▶ The use of programmable control elements in ADR vehicles is not permitted.

NOTE

The heater is not approved for the purpose of directly heating the cargo area of ADR vehicles (hazardous substance transportation).

2.3 Regulations and legal requirements

- ✓ Regulations in the Installation Instructions must be observed.

3 Operation**NOTE**

Hazardous material vehicles (ADR) must not be switched on or off using a timer control or remote control.



Observe additional requirements from the operating and installation instructions for the Thermo Top Pro 120 | 150 and the control element.

3.1 Control elements

The Thermo Top Pro 120 | 150 can be fitted with various control elements:

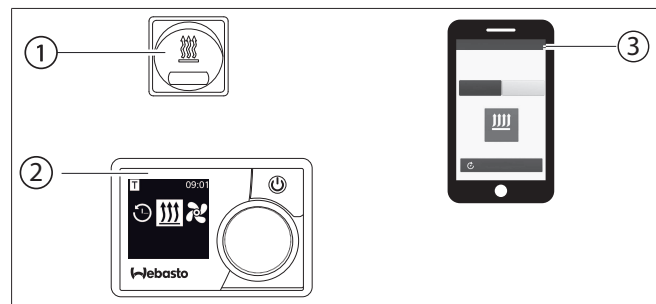


Fig. 1

1	Rocker switch
2	MultiControl or SmartControl
3	ThermoCall TC4

A combination of control elements is also possible.

- ✓ Observe the Operating instructions for the control element.

3.2 Setting up a vehicle heating system**NOTE**

Depending on the type of vehicle, the air-conditioning system can perform these settings automatically or partly autonomously. Ask your specialist dealer to explain the optimum settings.

1. Before switching on the heater (with the ignition on), set the vehicle heating system to "warm".
2. Set the vehicle fan to the lowest setting (lower power consumption).

3.3 Switch the heater on and off

The heater is switched on and off by different switch signals. Depending on the system equipment, the switch signals are produced by a switch, control element or a climate control system.

**DANGER****Danger of explosion and suffocation**

For ADR vehicles: The heater must only be switched on manually via a switch. The heater must not be switched on automatically via a programmable switch.

**DANGER****Overheating possible**

An emergency off switch may only be actuated in the event of danger since the heater will be switched off without after-running period.

**NOTE****Always switch off the heater via the control element**

After switching off via the control element, the heater switches to a short controlled run-on phase. Switching off incorrectly, without after-run, can cause damage to the heater.

3.4 Heater operation

The coolant temperature is controlled automatically throughout operation. The heater can also be switched on while travelling. The vehicle blower is only switched on when the coolant temperature is at around 30°C, avoiding unnecessary energy consumption. The vehicle blower can thus be started with a time delay, depending on the temperature. When switching off the heater, a cooling afterrunning period is initiated; this can last up to 60 seconds.

3.5 Using the heater in hazardous material vehicles (ADR)

It is not possible to set a preselection time in hazardous material vehicles (ADR). The SmartControl (if present) shows how much heater operation time is left (remaining operation time).

**NOTE****An ADR after-running period is applied in the following cases:**

- the generator signal (D+, light machine) is discontinued.
- the pumping device (auxiliary drive) belonging to the vehicle is put into operation.

After the end of the ADR after-running period, the heater is in ADR locking mode.

**NOTE****Release ADR lock:**

- ▶ Put the pumping device belonging to the vehicle out of operation.
- ▶ Restart the heater by switching it off and on again using the control element.

3.6 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.

3.7 Use of residual heat

Activation

Use of residual heat is only activated when the heater is switched on. This is a fully automatic function that is activated when the engine is warm; it is used to conserve energy. Every time it is switched on, the heater checks the coolant temperature before starting the heating process. If the coolant temperature is above a limit value, residual heat utilisation is activated

automatically. When use of residual heat is activated, the coolant pump for the heater and the vehicle blower are automatically actuated.

Deactivation

Deactivation of the use of residual heat is carried out automatically by the heater control unit.

4 Fuel

The heater is connected to the fuel tank of the vehicle or to a separate fuel tank.

Suitable fuels:

- Thermo Top Pro 120 | 150 D: Diesel DIN EN 590; biodiesel DIN EN 14214 and HVO DIN EN 15940
- Thermo Top Pro 120 | 150 B: Petrol DIN EN 228

4.1 Converting from operation with summer diesel to winter diesel

- ✓ The tank is filled up with winter diesel (cold-resistant fuel). However, the fuel system for the heater may still contain residues of summer diesel.
- ▶ Switch on the heater for approx. 15 minutes (the fuel system is completely filled with cold-resistant fuel).

5 Coolant

**Overheating caused by insufficient coolant or defective coolant flow**

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

6 Combustion air

**DANGER****Danger of fire**

Flammable materials or liquids in the hot air flow.

- ▶ Keep the hot air flow free

7 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!

8 Cleaning

Carefully clean the heater using water and a cleaning agent suitable for cleaning vehicles.

**NOTE**

Do not clean the Thermo Top Pro 120 | 150 with a high-pressure cleaner.

9 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 / H82	No start	Switching the heater off and on
F02	H03	Flame goes out during operation	
F03	H04 / H84	On-board power supply too low / under-voltage or overvoltage	<ul style="list-style-type: none"> ● Charge the vehicle battery. ● Switching the heater off and on.
F10	H06	Heater overheats	<ul style="list-style-type: none"> ● 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	<ul style="list-style-type: none"> ● Make sure that the pumping device is out of operation. ● Wait until the heater switches to fault lock-out. ● Switch off the heater via the control element. ● Switch the heater on via the control element.
-	-	Heater produces black smoke	
-	-	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.

10 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.

11 Maintenance

- Put the heater into operation every 4 weeks in order to prevent mechanical parts from seizing.
- At the beginning of the heating period, have the heater checked by a professional.

12 Disposal end of life

The Thermo Top Pro 120 | 150 must not be disposed of in domestic waste.

- Observe the regional regulations for disposal of electronic products.

13 Service and customer services

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

National phone numbers of our representatives are provided on:

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

14 Declarations of conformity



UK-Konformitätserklärung
UK-Declaration of Conformity



Hersteller **Webasto Thermo & Comfort SE**

Manufacturer Friedrichshafener Straße 9
82205 Gilching
Germany

Für die Verwendung des Webasto Heizgerätesystems
For the use of the Webasto heating system

Thermo Top Pro 120

Richtlinie	Ausgewählte Normen
Directive	Designated Standards
Supply of Machinery (Safety) Regulations 2008	EN ISO 13849-1:2008-12 EN ISO 12100:2011 DIN EN 61310-2:2008-09
Electromagnetic Compatibility Regulations 2016	EN 13309:2010 EN ISO 14982:2009 EN 12895:2015 EN 61000-6-2:2005/AC:2005 EN 61000-6-3:2007/A1:2011/AC:2012 ISO 13766:2006
RoHS Regulations 2012	

Befolgen Sie die Einbauanweisung 9034444
und die Bedienungsanweisung 9033103

Follow the installation instruction
and operating instruction

Ort und Datum der Ausstellung Gilching, den 09.07.2021
Place and Date of issue

i.V.

T. Zwicker
VP BLM FOH
BLM ECHS FH/ CS Interface

Webasto Thermo & Comfort SE

i.A.

J. Belz
Product Conformity & Regul. Mgr.

Webasto Roof & Components SE

Original in deutscher Fassung.
Original in German version.

Die alleinige Verantwortung für die Ausstellung dieser
Konformitätserklärung trägt der Hersteller.

This declaration of conformity is issued under the sole responsibility of
the manufacturer.



UK-Konformitätserklärung UK-Declaration of Conformity



Hersteller Webasto Thermo & Comfort SE

Manufacturer Friedrichshafener Straße 9
82205 Gilching
Germany

Für die Verwendung des Webasto Heizgerätesystems
For the use of the Webasto heating system

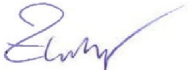
Thermo Top Pro 150

Richtlinie	Ausgewählte Normen
Directive	Designated Standards
Supply of Machinery (Safety) Regulations 2008	EN ISO 13849-1:2008-12 EN ISO 12100:2011 DIN EN 61310-2:2008-09
Electromagnetic Compatibility Regulations 2016	EN 13309:2010 EN ISO 14982:2009 EN 12895:2015 EN 61000-6-2:2005/AC:2005 EN 61000-6-3:2007/A1:2011/AC:2012 ISO 13766:2006
RoHS Regulations 2012	

Befolgen Sie die Einbauanweisung 9034444
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Webasto Thermo & Comfort SE

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Original in deutscher Fassung.
Original in German version.

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Konformitätserklärung trägt der Hersteller.
This declaration of conformity is issued under the sole responsibility of
the manufacturer.

15 Type testing and approvals



Kraftfahrt-Bundesamt
DE-24932 Flensburg



MITTEILUNG

ausgestellt von:
Kraftfahrt-Bundesamt

die Erweiterung der Genehmigung
für einen Typ eines Bauteils nach der Regelung Nr. 122

COMMUNICATION

issued by:
Kraftfahrt-Bundesamt

approval extended
of a component type pursuant to Regulation No. 122

Nummer der Genehmigung: 0481 Erweiterung Nr.:
Approval No.: Extension No.:

Grund (Gründe) für die Erweiterung (gegebenenfalls):
Reason(s) of extension (if applicable):
technische Änderungen
technical modifications

Abschnitt I Section I

Allgemeines General

- 1.1 Marke (Firmenname des Herstellers):
Make (trade name of manufacturer):
Webasto Thermo & Comfort SE
- 1.2 Typ:
Type:
Thermo Top Pro 120
- 1.2.1 Handelsbezeichnung(en):
General commercial description(s):
Thermo Top Pro 120

Typgenehmigung Thermo Pro 120



Kraftfahrt-Bundesamt
DE-24932 Flensburg

2

Nummer der Genehmigung: 0481, Erweiterung 02
Approval No.:

1.3 Merkmale zur Typidentifizierung, falls an der Einrichtung vorhanden:
Means of identification of type, if marked on the device:
Typbezeichnung
type

1.3.1 Stelle, an der diese Merkmale angebracht sind:
Location of that marking:
auf dem Gehäuse und nach dem Einbau zusätzlich am Fahrzeug
on the housing and after the installation additional on the vehicle

1.4 Name und Anschrift des Herstellers:
Name and address of manufacturer:
Webasto Thermo & Comfort SE
DE-82205 Gilching

1.5 Stelle, an der das ECE-Genehmigungszeichen angebracht ist:
Location of the ECE approval mark:
auf dem Gehäuse
on the housing

1.6 Anschrift(en) der Fertigungsanlage(n):
Address(es) of assembly plant(s):
Webasto Thermo & Comfort SE
(Werk Neubrandenburg)
DE-17033 Neubrandenburg

Abschnitt II Section II

1. Zusätzliche Angaben (falls zutreffend):
Additional information (where applicable):
erfällt
not applicable
2. Technischer Dienst, der die Prüfungen durchführt:
Technical service responsible for carrying out the tests:
DEKRA Automobil Test Center der DEKRA Automobil GmbH
DE-01998 Kietzitz
3. Datum des Gutachtens:
Date of test report:



Kraftfahrt-Bundesamt
DE-24932 Flensburg

3

Nummer der Genehmigung: 0481, Erweiterung 02
Approval No.:

4. Nummer des Gutachtens:
Number of test report:

5. Gegebenenfalls Bemerkungen:
Remarks (if any):
erfällt
not applicable

6. Ort:
Place:
DE-24932 Flensburg

7. Datum:
Date:

8. Unterschrift:
Signature
Im Auftrag

(Jörg Burghardt)



Kraftfahrt-Bundesamt
DE-24932 Flensburg



MITTEILUNG

ausgestellt von:
Kraftfahrt-Bundesamt

die Erweiterung der Genehmigung
für einen Typ eines Bauteils nach der Regelung Nr. 122

COMMUNICATION

issued by:
Kraftfahrt-Bundesamt

approval extended
of a component type pursuant to Regulation No. 122

Nummer der Genehmigung: 0480 Erweiterung Nr.:
Approval No.: Extension No.:

Grund (Gründe) für die Erweiterung (gegebenenfalls):
Reason(s) of extension (if applicable):
technische Änderungen
technical modifications

Abschnitt I Section I

Allgemeines General

- 1.1 Marke (Firmenname des Herstellers):
Make (trade name of manufacturer):
Webasto Thermo & Comfort SE
- 1.2 Typ:
Type:
Thermo Top Pro 150
- 1.2.1 Handelsbezeichnung(en):
General commercial description(s):
Thermo Top 150

Typgenehmigung Thermo Pro 150



Kraftfahrt-Bundesamt
DE-24932 Flensburg

2

Nummer der Genehmigung: 0480, Erweiterung 02
Approval No.:

1.3 Merkmale zur Typidentifizierung, falls an der Einrichtung vorhanden:
Means of identification of type, if marked on the device:
Typbezeichnung
type

1.3.1 Stelle, an der diese Merkmale angebracht sind:
Location of that marking:
auf dem Gehäuse und nach dem Einbau zusätzlich am Fahrzeug
on the housing and after the installation additional on the vehicle

1.4 Name und Anschrift des Herstellers:
Name and address of manufacturer:
Webasto Thermo & Comfort SE
DE-82205 Gilching

1.5 Stelle, an der das ECE-Genehmigungszeichen angebracht ist:
Location of the ECE approval mark:
auf dem Gehäuse
on the housing

1.6 Anschrift(en) der Fertigungsanlage(n):
Address(es) of assembly plant(s):
Webasto Thermo & Comfort SE
(Werk Neubrandenburg)
DE-17033 Neubrandenburg

Abschnitt II Section II

1. Zusätzliche Angaben (falls zutreffend):
Additional information (where applicable):
erfällt
not applicable
2. Technischer Dienst, der die Prüfungen durchführt:
Technical service responsible for carrying out the tests:
DEKRA Automobil Test Center der DEKRA Automobil GmbH
DE-01998 Kietzitz
3. Datum des Gutachtens:
Date of test report:



Kraftfahrt-Bundesamt
DE-24932 Flensburg

3

Nummer der Genehmigung: 0480, Erweiterung 02
Approval No.:

4. Nummer des Gutachtens:
Number of test report:

5. Gegebenenfalls Bemerkungen:
Remarks (if any):
erfällt
not applicable

6. Ort:
Place:
DE-24932 Flensburg

7. Datum:
Date:

8. Unterschrift:
Signature
Im Auftrag

(Jörg Burghardt)



To request this documentation in another language, please locate and contact your local Webasto dealer. You can find your nearest dealer at: <https://dealerlocator.webasto.com/en-int>.
To provide feedback (in English or German), please email: feedback2tdt@webasto.com

Europe, Asia Pacific:

Webasto
Kraillinger Str. 5
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Germany

UK only:

Webasto Thermo & Comfort UK Ltd
Webasto House
White Rose Way
Doncaster Carr
South Yorkshire
DN4 5JH
United Kingdom

