# Installation Instructions

# Thermo Top Evo

Water Heater

## English

**This document is valid for:**

Thermo Top Evo - B/D
Thermo Top Evo RV/HD - D
Thermo Top Evo HD - D
Thermo Top Evo RV - D

# Contents

# 1 General information

## 1.1 Purpose of the document

These installation instructions are part of the Thermo Top Evo Smart and contain all the information required to ensure correct and safe installation.

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

**NOTE**
Carefully read through and follow the heater Installation Instructions and the safety information contained therein.

## 1.2 Using this document

The requirements of this document must be observed when installing the heater. The workshop manual must be followed when carrying out work to the heater.

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**
Failure to follow the installation instructions and the notes contained therein will lead to all liability being refused by Webasto. The same applies if repairs are carried out incorrectly or with the use of parts other than genuine spare parts. This will result in the invalidation of the type approval for the heater and therefore of its homologation / EC type licence.

**WARNING**
Repair and maintenance work on the heater requires specialist knowledge and special tools. Incorrect adjustment or maintenance can cause damage to the heater or accidents which will result in serious damage.

**The installation personnel must have the following qualifications:**

- Successful completion of Webasto training.
- Corresponding qualification for working on technical systems.

## 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.

**NOTE**
The heater is not approved for ADR vehicles (hazardous substance transportation).

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:

- The heater is approved for cars (Class M1).
- Installation in Class O, N2 and N3 motor vehicles and vehicles for transporting hazardous substances is not permissible.
- If it is installed in special-purpose vehicles, the applicable regulations must be observed. Alternative applications are only possible with the prior approval of Webasto.
- Thermo Top Evo RV Classic with continuous heating is recommended for use in caravan & camping vehicles.
- The heater works together with the vehicle's heating system:
  - to heat the passenger compartment
  - to defrost vehicle windows
  - to preheat water-cooled
- engines (if technically possible).
- The heater can be installed as a parking heater or auxiliary heater.

## 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 Safety information on installation

**DANGER**

**Live parts are dangerous**

▶ Disconnect the vehicle from the power supply before installation.

▶ Make sure that the electrical system is earthed correctly.

▶ Always comply with all legal requirements.

▶ Observe the information on the type label.

**DANGER**

The requirements stipulated in the current version of the ADR must be additionally observed when installing the corresponding heater in vehicles used to transport dangerous goods.

### 2.2.3 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 recognised 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.

### 2.3.1 Application of combustion heaters in hazardous material vehicles (ADR)

The requirements stipulated in Regulation ECE R122, Annex 9 – Combustion Heaters – must additionally be observed when installing the Thermo Top Evo, Thermo Top Evo Smart in hazardous material vehicles. The relevant measures are specified in this document.

Vehicles used for the purpose of transporting dangerous goods are type approval tested in accordance with ECE R 105. The following measures are derived for our combustion heaters.

- The electrical cable/wiring harness must be sufficiently dimensioned to prevent overheating. The electrical cable/wiring harness must be sufficiently insulated. All electrical circuits must be protected by fuses or automatic circuit breakers. The cables must be installed and firmly secured such that the wirings are adequately protected against mechanical and thermal stress.
- The combustion heaters must be type-tested in accordance with ECE-R 122 and comply with Annex 9 - Additional regulations for vehicles used for transporting hazardous substances.
- The combustion heaters and their exhaust gas piping system must be designed, arranged, protected or covered so as to prevent any unacceptable risk of heating or ignition of the load.
- In the event of any fuel line leakage, the fuel shall drain to the ground without coming into contact with hot parts of the vehicle or the load.
- The exhaust system as well as the exhaust pipes shall be so directed or protected to avoid any danger to the load through heating or ignition. Parts of the exhaust system situated directly below the fuel tank shall have a clearance of 100 mm or be protected by a thermal shield.
- It must only be possible to switch the combustion heater on manually. Programming devices shall be prohibited. The combustion heater may be switched back on manually after switching off the vehicle engine.

### 2.3.2 ECE R122 Requirements

See eur-lex.europa.eu for more information.

Requirement from ECE-R 122:

Body sections and any other components in the vicinity of the heater must be protected from excessive heat and the possibility of fuel or oil contamination. (Point 5.3.2.1.).

The heater shall not constitute a risk of fire, even in the case of overheating. This requirement shall be deemed to be met if the installation ensures an adequate distance to all parts and suitable ventilation, by the use of fire resistant materials or by the use of heat shields. (Point 5.3.2.2.).
Every reasonable precaution should be taken in positioning the heater to minimize the risk of injury and damage to personal property. (Point 5.3.2.5.).
The fuel filler neck must not be situated in the passenger compartment and must be provided with an effective cap to prevent fuel spillage. (Point 5.3.3.1.).
In the case of liquid fuel heaters, where a supply separate from that of the vehicle is provided, the type of fuel and its filler neck must be clearly labelled. (Point 5.3.3.2.).
The air inlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely. (Point 5.3.5.2.).
Body sections and any other components in the vicinity of the heater must be protected from excessive heat and the possibility of fuel or oil contamination. (Point 5.3.2.1.).
The heater shall not constitute a risk of fire, even in the case of overheating. This requirement shall be deemed to be met if the installation ensures an adequate distance to all parts and suitable ventilation, by the use of fire resistant materials or by the use of heat shields. (Point 5.3.2.2.).
In the case of M2 and M3 vehicles, the combustion heater must not be positioned in the passenger compartment. However, an installation in an effectively sealed envelope which also complies with the conditions in paragraph 5.3.2.2 may be used. (Point 5.3.2.3.).
Every reasonable precaution should be taken in positioning the heater to minimize the risk of injury and damage to personal property. (Point 5.3.2.5.).
The fuel filler must not be situated in the passenger compartment and must be provided with an effective cap to prevent fuel spillage. (Point 5.3.3.1.).
In the case of liquid fuel heaters, where a supply separate from that of the vehicle is provided, the type of fuel and its filler neck must be clearly labelled. (Point 5.3.3.2.).
Body sections and any other components in the vicinity of the heater must be protected from excessive heat and the possibility of fuel or oil contamination. (Point 5.3.2.1.).
The heater shall not constitute a risk of fire, even in the case of overheating. This requirement shall be deemed to be met if the installation ensures an adequate distance to all parts and suitable ventilation, by the use of fire resistant materials or by the use of heat shields. (Point 5.3.2.2.).
The label referred to in Annex 7, paragraph 4, or a duplicate, must be positioned so that it can be easily read when the combustion heater is installed in the vehicle. (Point 5.3.2.4.).
Every reasonable precaution should be taken in positioning the heater to minimize the risk of injury and damage to personal property. (Point 5.3.2.5.).
The fuel filler must not be situated in the passenger compartment and must be provided with an effective cap to prevent fuel spillage. (Point 5.3.3.1.).
In the case of liquid fuel heaters, where a supply separate from that of the vehicle is provided,the type of fuel and its filler must be clearly labelled. (Point 5.3.3.2.).
A notice, indicating that the heater must be shut down before refuelling, must be affixed to the filler neck of the vehicle. [...] (Point 5.3.3.3.).
The exhaust gas outlet must be located so as to prevent exhaust gas from entering the vehicle through ventilators, hot air inlets or open windows. (Point 5.3.4.1.).
The air for the combustion chamber of the heater must not be drawn from the passenger compartment of the vehicle. (Point 5.3.5.1.).
The air inlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely. (Point 5.3.5.2.).
A clearly visible indicator lamp in the operator's field of view must indicate whether the combustion heater is switched on or off. (Annex 7, point 7.1.).

**Additionally for hazardous material vehicles (ADR)**

EX/II, EX/III, AT, FL and OX vehicles:
The combustion heaters and their exhaust gas routing shall be designed, located, protected or covered so as to prevent any unacceptable risk of heating or ignition of the load. This requirement shall be considered as fulfilled if the fuel tank and the exhaust system of the heater conform to the following provisions:

- Each fuel tank for supplying the heater must comply with the following regulations: In the event of a leak, the fuel must drain to the ground without coming into contact with hot parts of the vehicle or the load.
- The exhaust system as well as the exhaust pipes shall be so directed or protected to avoid any danger to the load through heating or ignition. Parts of the exhaust system situated directly below the fuel tank (...) shall have a clearance of at least 100 mm or be protected by a thermal shield.

Compliance with this paragraph shall be verified on the completed vehicle.
(Annex 9, point 3.1.1.).
EX/II, EX/III, AT, FL and OX vehicles:
The combustion heater shall be switched on manually. Programming devices are prohibited. (Annex 9, point 3.1.2.).
FL vehicles:
The combustion heaters shall be put out of operation by at least the following methods:
a ) Intentional manual switching off from the driver's cab;
b) Stopping of the vehicle engine; in this case the heater may be restarted manually by the driver;
c) Start up of a feed pump on the motor vehicle for the dangerous goods carried.
(Annex 9, point 3.3.1.).

# 3 Version

**Thermo Top Evo – D, Thermo Top Evo Smart - D**
For diesel fuel with heating time up to 120 min.
**Thermo Top Evo – B, Thermo Top Evo Smart - B**
For petrol fuel with heating time up to 120 min.
**Thermo Top Evo RV – D, Thermo Top Evo Smart RV – D**
For diesel fuel with continuous heating
**Thermo Top Evo Smart RV – B**
For petrol fuel with continuous heating
**Thermo Top Evo HD - D**
For diesel fuel with continuous heating.

▶ For technical information, see Technical data.

**NOTE**
Thermo Top Evo 5+ heater versions must not be used for island coolant system applications.

## 3.1 Parking heater

The heater works independently of the vehicle engine and is integrated into the coolant system, the fuel system and the electrical system of the vehicle.

- The stepless heating capacity control regulates the coolant at a target temperature of 80 °C.
- Switch: Pin 3: +12 V (violet) / Pin 1: +0 V (grey).

## 3.2 Auxiliary heater (optional)

- When switching on the engine, the heater will be switched on, depending on the outside temperature.
- When the engine is switched off, the heater is automatically switched off.
- The stepless heating capacity control regulates the coolant at a target temperature of 76 °C (RV/HD) or 80 °C (default).
- Switch: Pin 3: +12 V (violet) / Pin 1: +12 V (grey).

# 4 Disposal end of live

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.

# 5 Installation location and installation position

*Body sections and any other components in the vicinity of the heater must be protected from excessive heat and the possibility of fuel or oil contamination.*

Requirement from ECE-R 122, point 5.3.2.1. See eur-lex.europa.eu document 42010X0630(08) for more information.

*The heater shall not constitute a risk of fire, even in the case of overheating. This requirement shall be deemed to be met if the installation ensures an adequate distance to all parts and suitable ventilation, by the use of fire resistant materials or by the use of heat shields.*

Requirement from ECE-R 122, point 5.3.2.2. See eur-lex.europa.eu document 42010X0630(08) for more information.

**DANGER**

**Danger of overheating**

Outcome: Risk of fire. Protect vehicle components in the vicinity of the heater and exhaust line from overheating by implementing the following measures:

- ▶ Maintain minimum safety distances.
- ▶ Ensure adequate ventilation.
- ▶ Use fire-resistant materials or heat shields.
- ▶ Always comply with legal requirements.
- ▶ When installing a heater in hazardous material vehicles: comply with ADR guidelines.

- ▶ The heater must not be installed in the interior of the vehicle. The heater is preferably installed in the engine compartment, i.e. in the area between the wheel well and the front bumper.
- ▶ It should be installed as low as possible in order to ensure automatic bleeding of the heater and coolant pump.

**WARNING**

The water connection pieces must not point downwards in any installation position.

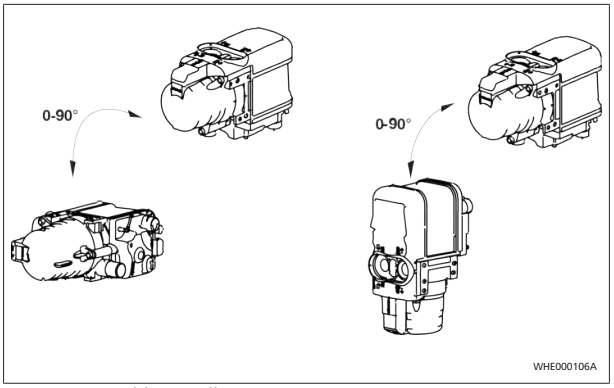



*Fig. 1 Permissible installation position*

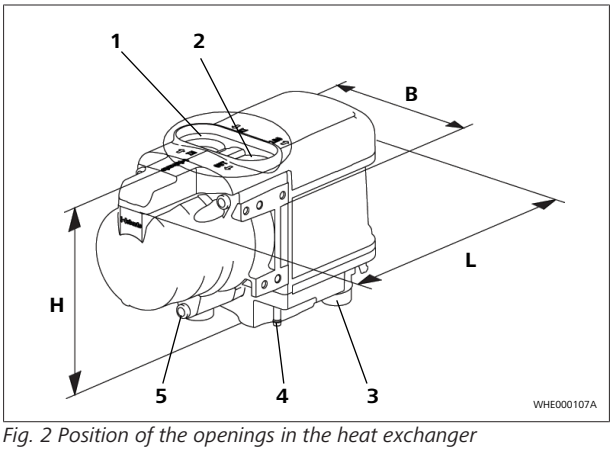



*Fig. 2 Position of the openings in the heat exchanger*

| | | | |
|---|---|---|---|
| 1 | Heat exchanger inlet | L | Length |
| 2 | Heat exchanger outlet | B | Width |
| 3 | Combustion air inlet | H | Height |
| 4 | Fuel inlet | | |
| 5 | Exhaust outlet | | |

DimensionsThermo Top Evo, Thermo Top Evo Smart see Technical data Thermo Top Evo.

**WARNING**

The heater must not be installed:

- ▶ In the direct radiated heat range of exhaust systems.
- ▶ Below the wading line of the vehicle.
- ▶ Above the coolant expansion tank.

## 5.1 Type label

*The label referred to in Annex 7, paragraph 4, or a duplicate, must be positioned so that it can be easily read when the combustion heater is installed in the vehicle.*

Requirement from ECE-R 122, point 5.3.2.4. See eur-lex.europa.eu document 42010X0630(08) for more information.

If the type label (Fig. 3) is not visible after installing the heater:

- ▶ Secure the type label duplicate such that it is clearly visible in a protected area on the vehicle.

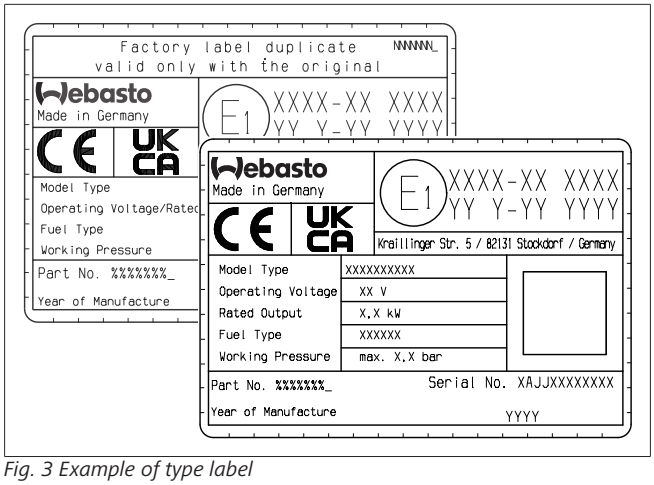



*Fig. 3 Example of type label*

## 5.2 Standard bracket

- The Thermo Top Evo, Thermo Top Evo Smart must be fastened to the bracket using at least 3 heater-specific screws M5 with 8 Nm torque.
- The heater mounting screws are approved for bracket plate thicknesses of 1.5 to 3.0 mm.
- The standard bracket must be secured to the vehicle body or to an intermediate bracket using at least 4 screws M6.
- Do not use sheet-metal screws to secure the bracket to the vehicle body.

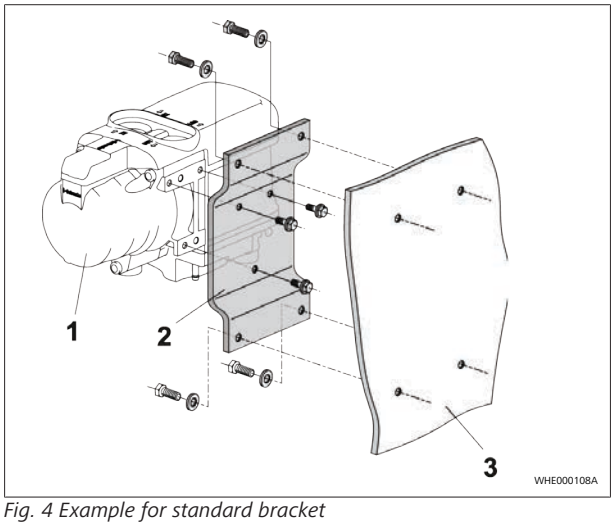



*Fig. 4 Example for standard bracket*

| | | | |
|---|---|---|---|
| 1 | Heater | 3 | Vehicle body |
| 2 | Bracket for heater | | |

# 6 Installation example in the vehicle

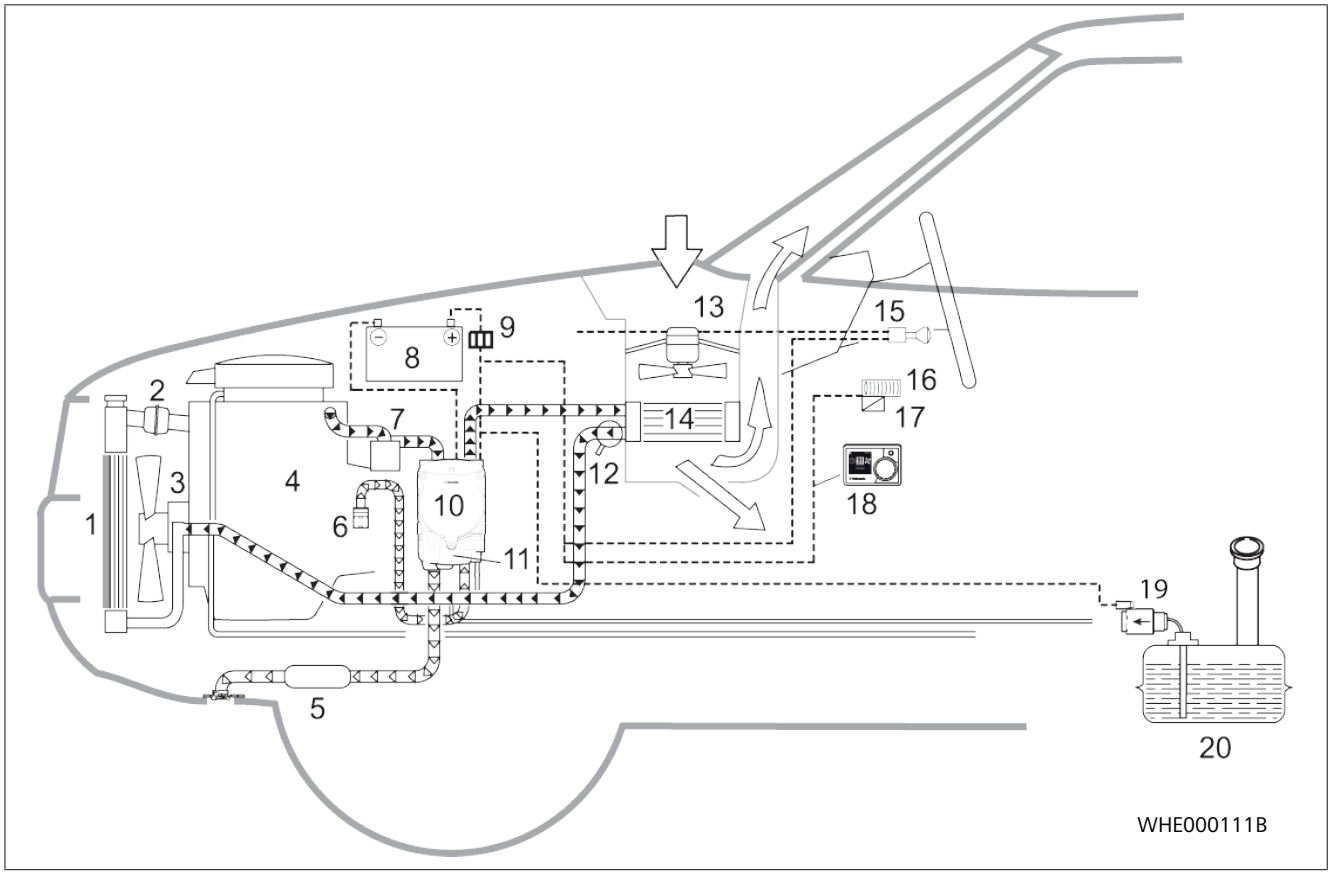



*Fig. 5 Example installation of the heater*

| | | | |
|---|---|---|---|
| 1 | Radiator | 11 | Control unit (in the heater) |
| 2 | Coolant thermostat | 12 | - |
| 3 | Coolant pump | 13 | Fan of the vehicle heating system |
| 4 | Internal combustion engine | 14 | Heat exchanger for vehicle heating system |
| 5 | Exhaust silencer | 15 | Switch for fan of the vehicle heating system |
| 6 | Intake silencer, combustion air intake pipe | 16 | Fuse block in vehicle |
| 7 | Coolant pump | 17 | Vehicle connection/blower interface |
| 8 | Battery | 18 | Control element |
| 9 | Fuse holder | 19 | Fuel dosing pump |
| 10 | Heater | 20 | Fuel extraction |

# 7 Integration in the coolant system

**DANGER**

**Danger of scalding from leaking hot coolant**

Scalding on opening the coolant circuit. The vehicle coolant circuit is pressurised.

▶ Allow the coolant to cool before working on the vehicle coolant system.

## 7.1 Connection

- The Thermo Top Evo, Thermo Top Evo Smart is connected to the vehicle coolant system as shown in Fig. 7, Fig. 5 and Fig. 6.
- The volume of coolant in the circuit must not be less than the volume specified in the Technical data.
- The heater should preferably be integrated in the coolant system at the vehicle's heat exchanger inlet.

**Coolant system Inline**

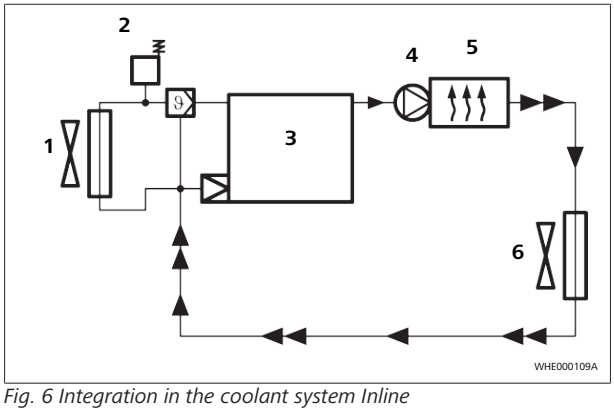



*Fig. 6 Integration in the coolant system Inline*

| | | | |
|---|---|---|---|
| 1 | Radiator | 4 | Coolant pump |
| 2 | Expansion tank | 5 | Heater |
| 3 | Internal combustion engine | 6 | Heat exchanger for vehicle heating system |

**Coolant system Island**

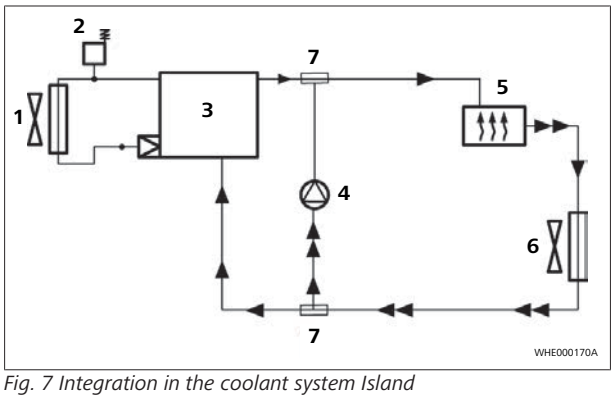



*Fig. 7 Integration in the coolant system Island*

| | | | |
|---|---|---|---|
| 1 | Radiator | 5 | Heater |
| 2 | Expansion tank | 6 | Heat exchanger for vehicle heating system |
| 3 | Internal combustion engine | 7 | Non-return valve |
| 4 | Coolant pump | | |

**NOTE**

▶ Collect the coolant running out of the system in a suitable container. The cooling system must be vented according to the manufacturer's instructions.

- The coolant hoses supplied by Webasto should always be used. If this is not possible, the hoses must comply with DIN 73411 material class B as a minimum.
- The hoses should be installed without kinks and – for problem-free bleeding – as far as possible with an upward slope away from the heater.
- Hoses must have an inner diameter of 18 mm.
- Hose connections must be secured against slipping using clamps.

**NOTE**

Correct bleeding can be identified by the fact that the coolant pump is making very little noise.

## 7.2 Assembly of the water connection piece

**NOTE**

Never mount the holding plate and the water connection pieces when the heater is installed.

✓ The contact surfaces of the O-rings in the heat exchanger must be clean and must not show any signs of damage.

✓ The O-rings must be wetted with water before being inserted into the heat exchanger.

1. Position the O-rings in the openings in the heat exchanger.
2. Insert the water connection pieces in the holding plate.
3. Move the connection pieces into the required installation position.
4. Secure the retaining plate with water connection piece onto the heat exchanger. Self-tapping screw DG 5X15 mm, torque 7 Nm.

▶ In order to ensure automatic bleeding of the heater, the water connection pieces must point upwards at an angle of 0° to 90°.

**WARNING**

The water connection pieces must not point downwards in any installation position.

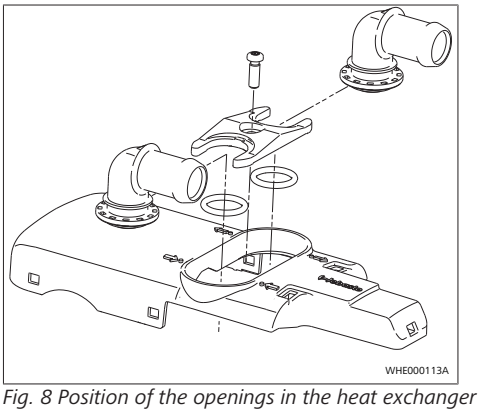



*Fig. 8 Position of the openings in the heat exchanger*

**WARNING**

Make sure the sensor cable is positioned correctly.

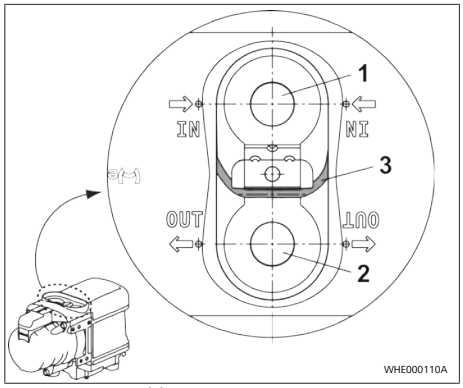



*Fig. 9 Sensor cable position*

| | | | |
|---|---|---|---|
| 1 | Heat exchanger inlet | 3 | Sensor cable |
| 2 | Heat exchanger outlet | | |

## 7.3 Assembling water hoses

- When connecting the coolant hoses to the coolant circuit, pay attention to the correct direction of flow of the coolant.
- To facilitate installation, the water hoses, coolant inlet and outlet on the heater and the coolant pump are marked with arrow markings.
- The clamps must be installed on the heat exchanger connection piece between the bead and the hose stop.
- Before initial start-up of the heater, or following replacement of the coolant, the cooling system should be bled carefully.
- The heater and lines must be installed in such a way that static bleeding is ensured.

**NOTE**

▶ Only spring clips that are approved by Webasto may be used for securing the water hoses.

**NOTE**

Correct bleeding can be identified by the fact that the coolant pump is making very little noise.

## 7.4 Installing the coolant pump

- The coolant pump must be mounted in the coolant circuit on the pressure side of the heater/heat exchanger inlet (see Fig. 6).
- Ensure the correct direction of flow of the coolant pump to the vehicle coolant circuit.
- The installation position of the coolant pump must be selected such that the coolant pump can perform automatic bleeding.
- The air volume contained in the coolant pump must be able to escape upwards independently via the connection pieces.
- Incorrect installation may lead to malfunctions of the coolant pump operation.

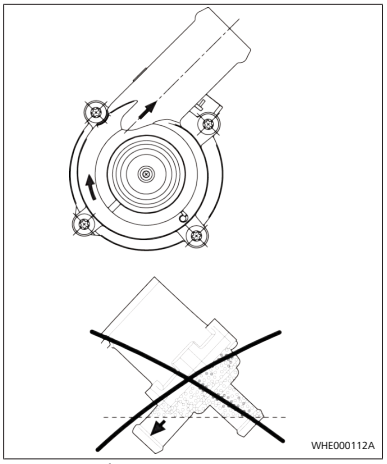



*Fig. 10 Coolant pump*

For electrical connection see also Electrical Connections .

## 7.5 Inspection

Once the heater and all coolant-carrying components have been installed, the entire coolant system should be checked for leaks and compliant hose fastening at the system pressure specified by the vehicle manufacturer.

**DANGER**

**Overheating**

Insufficient bleeding can lead to a malfunction as a result from overheating in heating mode.

▶ Take care when bleeding the coolant system. Always bleed:
- Before first commissioning the heater.
- After replacing the coolant.

# 8 Fuel integration

**DANGER**

**Risk of fire by fuel escaping from leaking fuel tank.**

▶ Do not drill into plastic fuel tank.

▶ Install suitable tank extracting device only on the vehicle's fuel delivery unit.

*The fuel filler must not be situated in the passenger compartment and must be provided with an effective cap to prevent fuel spillage.*

Requirement from ECE-R 122, point 5.3.3.1.

*In the case of liquid fuel heaters, where a supply separate from that of the vehicle is provided,the type of fuel and its filler must be clearly labelled.*

Requirement from ECE-R 122, point 5.3.3.2. See eur-lex.europa.eu document 42010X0630(08) for more information.

The fuel integration is carried out either in the supply or return line or by a special tank extraction unit.

## 8.1 Integration in the motor supply or return line

On vehicles with their own fuel feed pump in the fuel tank, the fuel must not be removed from the fuel supply line!

- If the vehicle is equipped with a non-return valve to the tank, the fuel must not be extracted from the return line.
- It must be ensured that no zero shut-off occurs in the vehicle system when extracting fuel.
- When removing fuel from the swirl pot, it must be ensured that it is not completely empty.

## 8.2 Integration via vehicle's own fuel delivery unit

The tank extracting device is installed in the fuel extraction unit of the tank.

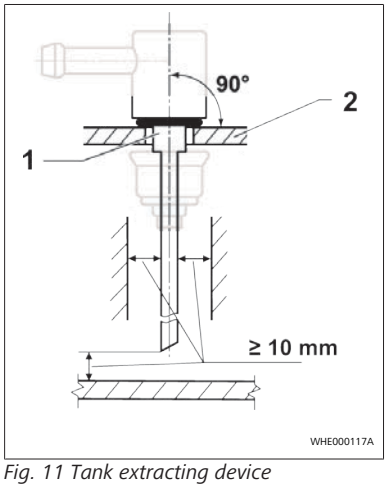



*Fig. 11 Tank extracting device*

| | | | |
|---|---|---|---|
| 1 | Tank extracting device | 2 | Vehicle's own fuel delivery unit with hole |

- The mounting surface of the tank extracting device must be clean, level and free of burrs.
- Make sure the standpipe is carefully routed when inserting the tank extracting device into the fuel extraction unit. The standpipe must not adversely affect the function of the fuel extraction unit parts, including the fill level indicator, during any of the operating states.
- The length of the standpipe should be selected such that, in the installed state, a minimum clearance of 10 mm above the floor of the tank or 20 mm above the floor of the fuel delivery unit is ensured.
- The safeguarding measures and the corresponding torque specified by the vehicle manufacturer must be observed.

## 8.3 Fuel line

**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.

**WARNING**

Do not route the fuel lines through the vehicle interior.

▶ Use Webasto-approved fuel lines and genuine Webasto connectors.

▶ Make sure that the connections are tight.

**NOTE**

**Malfunctions during combustion caused by gas bubbles and high fuel temperatures.**

Gas bubbles caused by the heat from the engine and high fuel temperatures can cause malfunctions during operation.

▶ Install the fuel lines in cool areas.

▶ Keep line lengths as short as possible.

▶ Avoid sagging of the fuel line.

▶ Fasten fuel lines.

▶ Protect the fuel lines from damage:

– Install stone impact guard.

– Fit protectors on sharp edges.

▶ Protect fuel lines from high temperatures (e.g. from exhaust pipe):

– Install heat shield if necessary.

– Do not install fuel lines in areas where heat builds up.

▶ Make sure the fuel lines are not damaged.

**NOTE**

Use only plastic fuel lines made from light and temperature-resistant PA12/ETFE, PA12/ EFEP, PA9T/PA12 in accordance with DIN 73378 or suitable steel lines.

**NOTE**

Only lines approved by Webasto may be used as fuel lines.

| | |
|---|---|
| Length of intake pipe [m] | max. 3.0m |
| Intake height [m] (height difference between tank and fuel pump) | max. 1.0m |
| Length of pressure pipe | max. 9.0m |

## 8.4 Connecting 2 lines using a hose

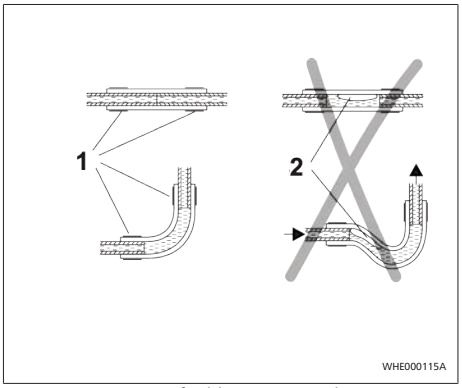



*Fig. 12 Connecting fuel lines using a hose*

| | | | |
|---|---|---|---|
| 1 | Hose clip | 2 | Air bubble |

**WARNING**

Make sure there are no leaks!

**NOTE**

Only Webasto-approved fuel lines and fastening and connecting parts may be used.

## 8.5 Fuel pump

**NOTE**

Damage to the fuel pump.

▶ Lines should be filled under the control of the Webasto Thermo Test PC Diagnostics only.

▶ Do not operate the fuel pump using the vehicle voltage.

**NOTE**

Operating the heater with any other than the DP 42 / 42.4 fuel pump will invalidate the warranty and type approval.

▶ The heater must only be operated using the fuel pump DP 42 / 42.4.

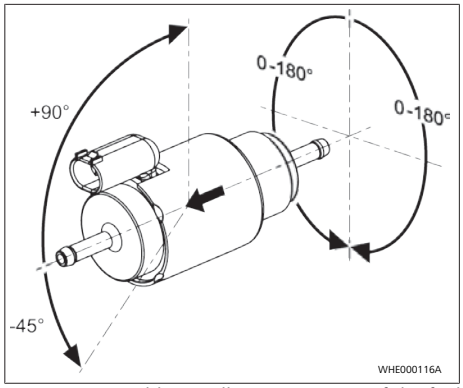



*Fig. 13 Permissible installation positions of the fuel pump*

## 8.6 Installation and attachment fuel pump

- The fuel pump must be secured with a vibration-damping mounting.
- The installation position is restricted (maximum inclination angle and axial installation position of fuel pump) as illustrated in Fig. 13 to ensure effective automatic bleeding.
- The arrow indicates the direction the fuel is flowing.

▶ The fuel pump must not be installed within the radiated heat range of hot vehicle components. Fit a heat shield if necessary. The fuel pump should be preferably installed close to the fuel tank.

Permissible ambient temperature depending on the fuel used, see Technical data.

## 8.7 Fuel filter

**NOTE**

▶ If use of poor-quality fuel is likely, a Webasto fuel filter must be installed.

▶ Enter fuel filter in the vehicle's service booklet.

## 8.8 Sticker

*A notice, indicating that the heater must be shut down before refuelling, must be affixed to the filler neck of the vehicle. [...]*

Requirement from ECE-R 122, point 5.3.3.3.

▶ Affix the sticker "Switch Off Heater Before Refuelling" (included in scope of delivery) in area of fuel filler neck.

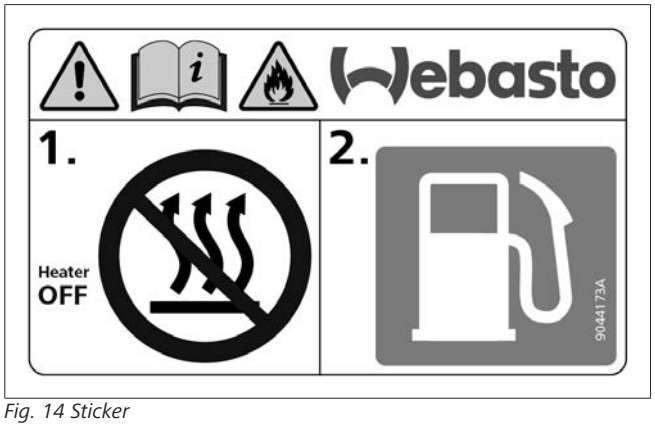



*Fig. 14 Sticker*

## 8.9 Cold-resistant fuels

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.

# 9 Combustion air supply

**WARNING**

It is important to avoid pressure differences (positive or negative) between the exhaust gas outlet and the combustion air inlet.

**DANGER**

**Risk of burn injuries due to insufficient distance between hot air outlet and persons.**

Burn injuries

▶ Make sure that people are protected from the direct hot air flow from the heater and from contact with surfaces that will become hot.

▶ Heat-sensitive parts must be protected from the direct hot air flow.

**DANGER**

**Danger of fire**

Flammable materials or liquids in the combustion air flow.

▶ Keep combustion air flow clear.

*The air for the combustion chamber of the heater must not be drawn from the passenger compartment of the vehicle.*

Requirement from ECE-R 122, point 5.3.5.1. See eur-lex.europa.eu document 42010X0630(08) for more information.

*The air inlet must be so positioned or guarded that blocking by rubbish or luggage is unlikely.*

Requirement from ECE-R 122, point 5.3.5.2. See eur-lex.europa.eu document 42010X0630(08) for more information.

## 9.1 Combustion air pipe

The design of the combustion air intake line can only be used in combination with an intake silencer.

## 9.2 Intake silencer

- The combustion intake opening must be arranged in such a way that it cannot become clogged with dirt.
- The take-off point for the combustion air must be situated at a location above the wading depth of the vehicle that is cool and protected against spray; the installation space must not cause overpressure or underpressure (e.g. owing to the airstream).
- A ventilation opening measuring at least 3 $cm^2$ is required if the intake opening is installed in an enclosed installation space. A direct airstream flow must be avoided.

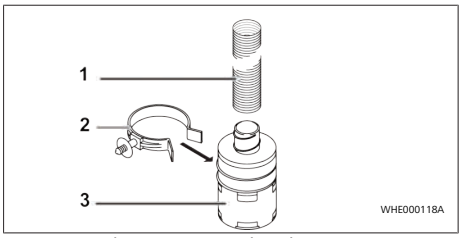



*Fig. 15 Combustion-air intake silencer*

| | | | |
|---|---|---|---|
| 1 | Combustion air intake line | 3 | Combustion-air intake silencer |
| 2 | Mounting clip | | |

## 9.3 Notes on installation

**DANGER**
Use only combustion air intake lines approved by the manufacturer. Damage caused by confusing the exhaust line with the combustion air intake line.

1. Screw a combustion-air intake pipe with a maximum length of 400 mm onto the combustion-air intake connection piece of the heater.
2. Screw the combustion-air intake silencer as far as possible into the combustion-air intake pipe.

**DANGER**
Leaks can result in a higher noise level.
Ensure an adequate distance from the exhaust system to prevent the intake of exhaust gas!

# 10 Exhaust system

**DANGER**
**Danger of suffocation**
**Outcome: Poisoning and asphyxiation**
- ▶ Exhaust gas must be routed outside.
- ▶ Make sure that the exhaust gasses and exhaust lines are not routed through the interior.

**DANGER**
**Fire risk due to hot exhaust gasses**
**Outcome: Injuries or damage to property caused by fire**
- ▶ Do not direct the exhaust gas outlet towards highly flammable or heat-sensitive parts.

✓ Avoid syphons (risk of condensation accumulation).

| Requirements of the exhaust line | Value |
|---|---|
| Inside diameter | 22 mm |
| Material | Non-corroding |
| Minimum length | 0.5 m |
| Maximum length | 5 m * |
| Maximum length with exhaust or / and combustion air intake silencer | 2.5 m * |
| Smallest bend radius | 50 mm |
| Max. sum of all bends | 270° |

*: Maximum total length of combustion air intake line and exhaust pipes combined.

- ▶ Do not secure the exhaust line to heat-sensitive parts.
- ▶ Install exhaust lines continually falling from heater (condensation can drain off).
- ▶ If exhaust line cannot be installed continually falling:
  - – Make a condensation drain hole (Ø 2-4 mm) at the lowest point of the syphon. See Condensed-water drain.
  - – Make sure that the condensation drain hole does not point towards parts that are sensitive to water or heat.
- ▶ Insulate exhaust line (use appropriate insulation) to prevent condensation.
- ▶ Maintain maximum length of exhaust line.

✓ The exhaust gasses can flow out unhindered.
✓ The exhaust gas outlet must not be blocked.
✓ Exhaust gases must not emerge in the direction of travel.
✓ The exhaust gas outlet is not too close to the ground.
✓ The exhaust silencer must be installed at least 200 mm away from the heater.
✓ The exhaust silencer is not secured to heat-sensitive parts (e.g. brake lines, electrical cables).

- ▶ Ensure the correct installation position of the exhaust silencer (horizontal, +/- 45°).
- ▶ Maintain adequate distance from heat-sensitive parts. A heat shield can be fitted.
- ▶ Install exhaust silencer such that condensation can drain off through the condensation drain hole in the exhaust silencer.

**NOTE**
The spacer must not be used as an exhaust pipe end mounting device in the engine undertray.

✓ The exhaust gas outlet may not be in the area in which the wheels throw up matter.
✓ Ensure the maximum turning angle of the front wheels.
✓ Care must be taken to ensure that the exhaust outlet cannot be blocked and cannot be damaged under any usage conditions.
✓ The exit of the exhaust pipe must not face in the direction of travel.
✓ Point the direction of outflow vertically downward or a maximum of 20° opposite the direction of travel.

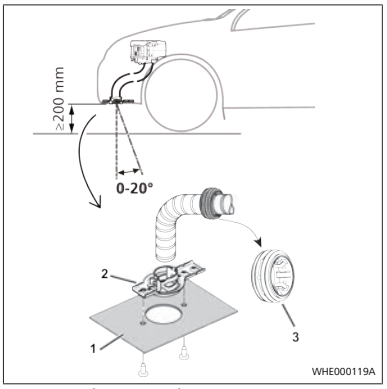



*Fig. 16 Exhaust outlet*

| | | | |
|---|---|---|---|
| 1 | Underride protection | 3 | Spacer |
| 2 | Exhaust end fastener | | |

# 11 Electrical Connections

**DANGER**
**Danger of fire and/or overheating caused by live parts.**
- ▶ The vehicle power supply must be disconnected when the heater is being installed or worked on.

**DANGER**
**Danger of fire and/or overheating caused by live parts**
- ▶ The electrical cable or wiring harness must be sufficiently dimensioned and insulated.
- ▶ All electrical circuits must be protected by fuses or automatic circuit breakers.
- ▶ The electrical cable or wiring harness must be firmly secured and routed such that the cable or wiring harness is adequately protected against mechanical and thermal stress.

**NOTE**

- Electrical components, such as relays, fuses, switches, etc., must be installed so that they are protected from the penetration of water (splash water, high-pressure cleaners, etc.).

**NOTE**

- The electrical connector must be routed so that the cable cannot be kinked directly after the connector under any circumstances. The electrical connector must be installed tension and pressure-free in all directions.

The vehicle blower is controlled as set out in the vehicle-specific installation documentation.

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

# 12 Wiring Diagram

Wires or components shown with dashed lines are optional and not included in the scope of delivery or in the wiring harness.

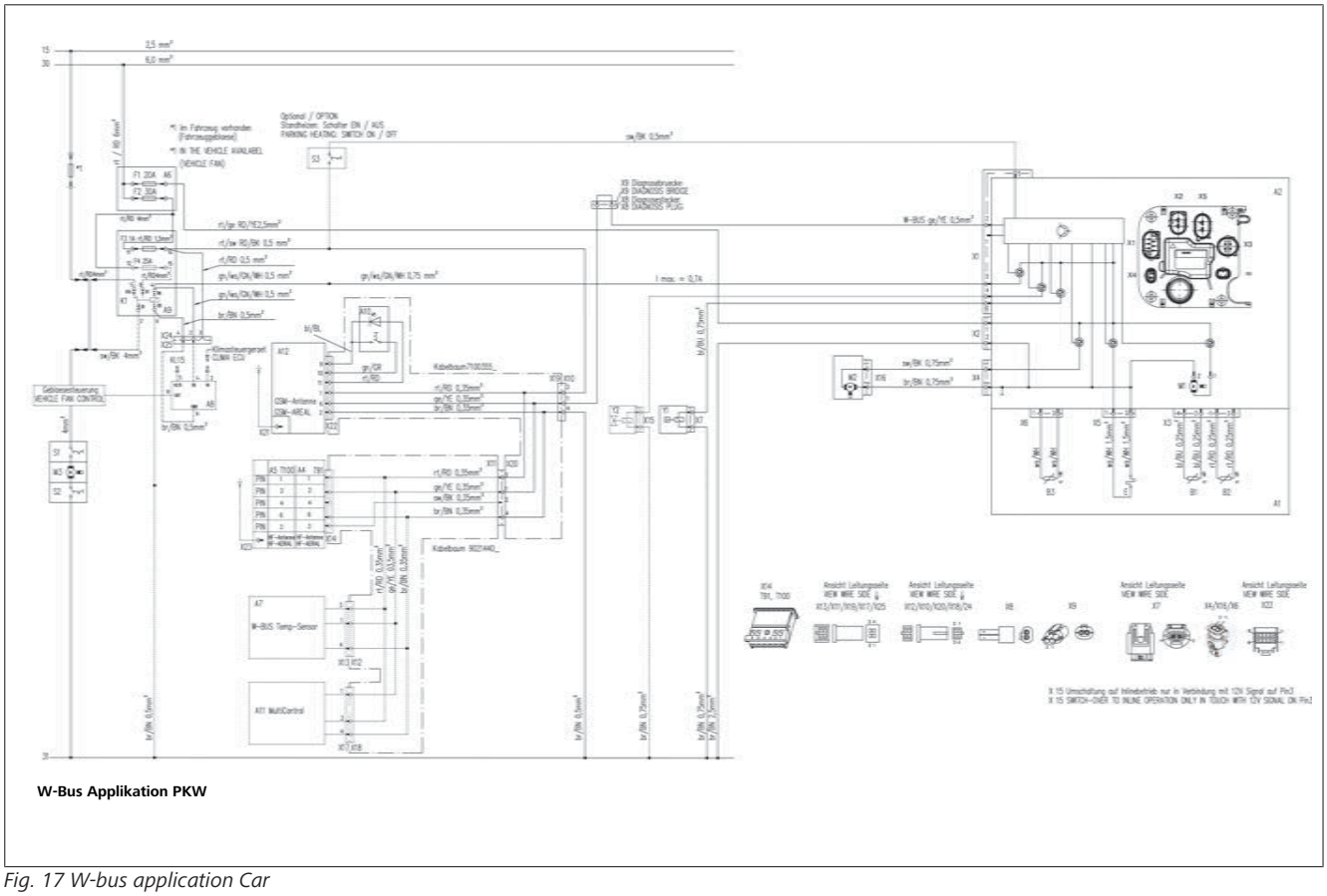
**NOTE**

The line cross-sections specified in the system wiring diagram apply for line lengths < 4.5 m.

| | |
|---|---|
| bl | Blue |
| br | Brown |
| ge | Yellow |
| gn | Green |
| gr | Grey |
| or | Orange |
| rt | Red |
| sw | Black |
| vi | Violet |
| ws | White |

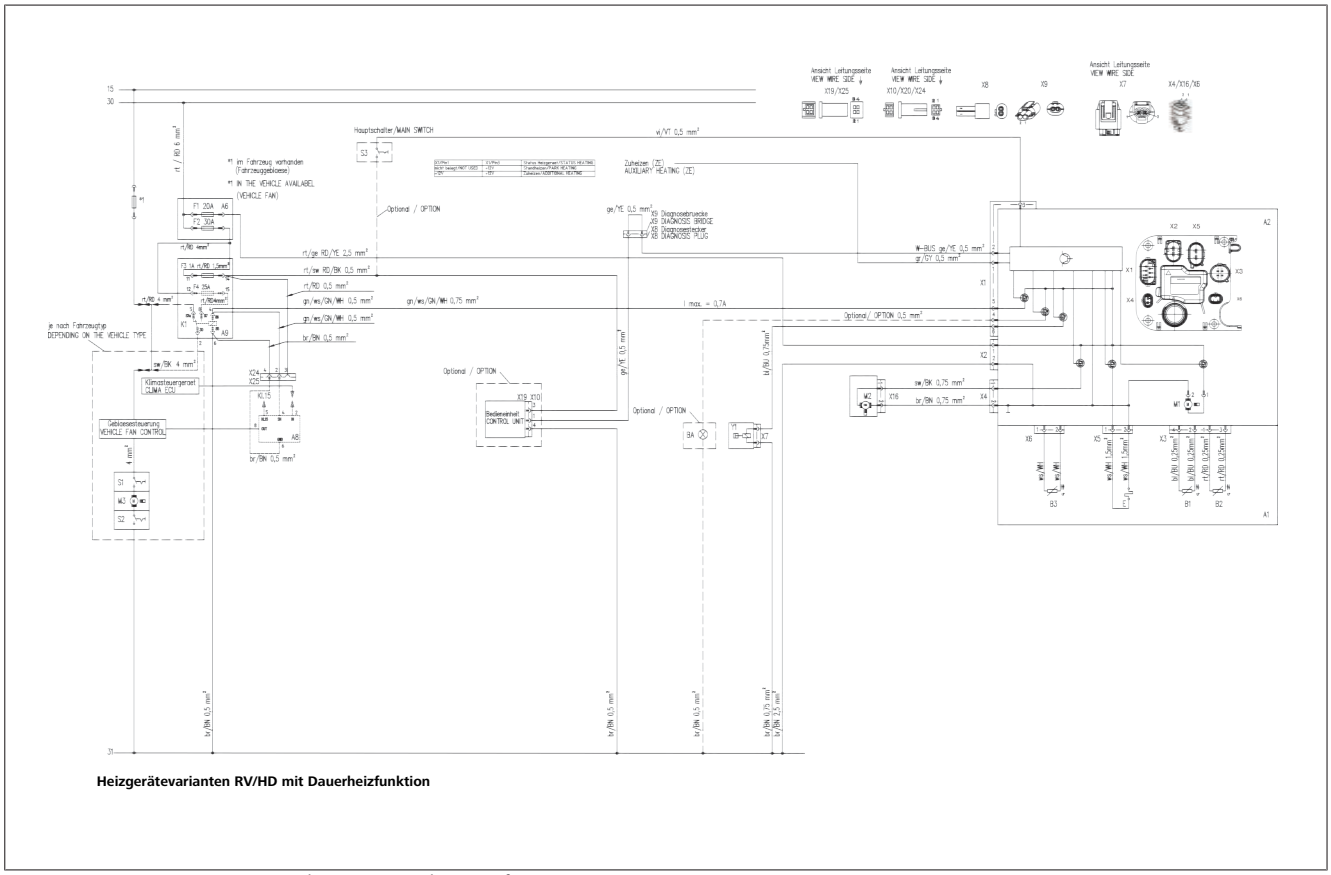
## 12.1 Wiring diagrams

Multiple configurations are possible for the heater.



**W-Bus Applikation PKW**

*Fig. 17 W-bus application Car*



**Heizgerätevarianten RV/HD mit Dauerheizfunktion**

*Fig. 18 Heater versions RV/HD with continuous heating function*

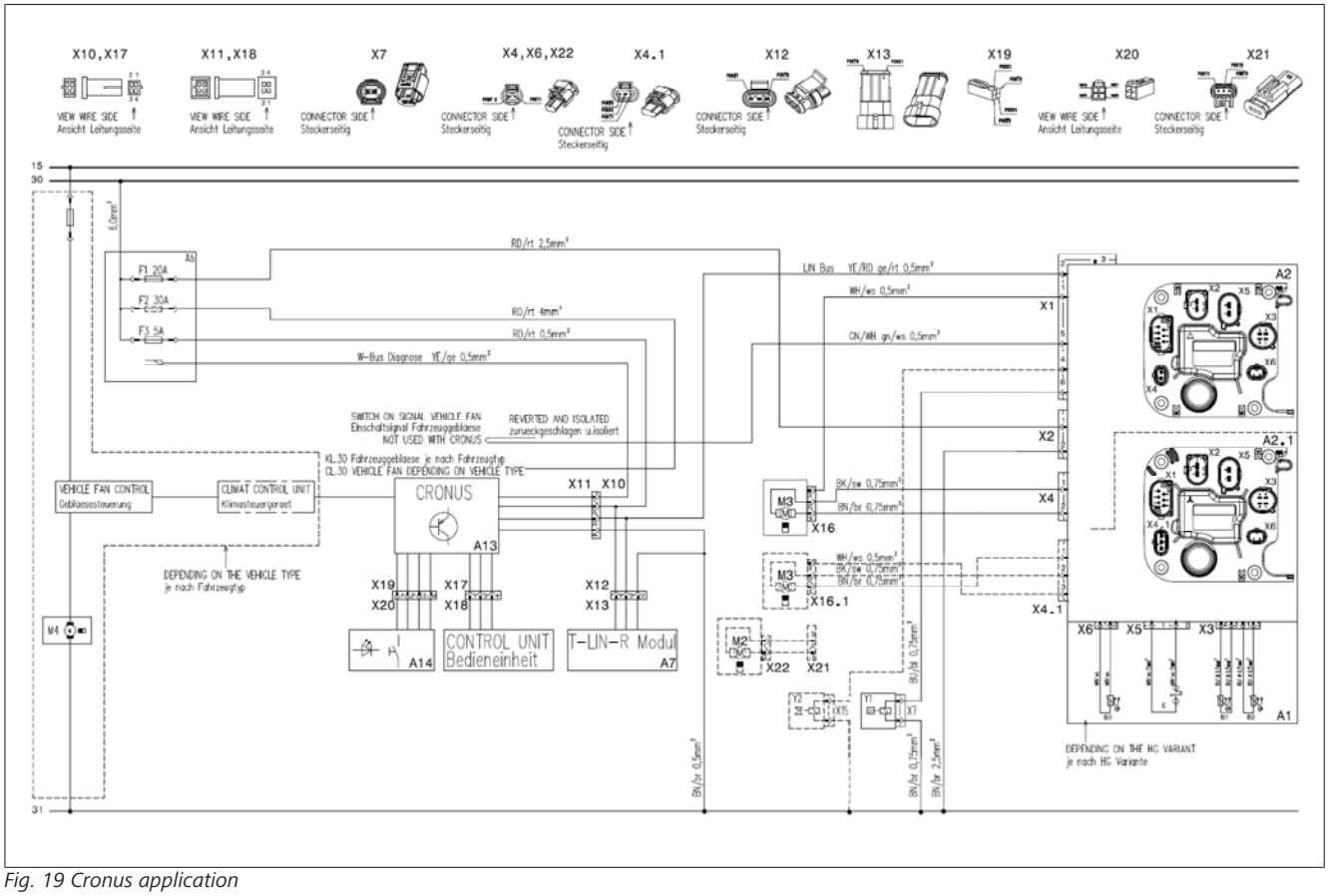



*Fig. 19 Cronus application*

### 12.1.1 Legend to wiring diagrams and pin assignment

**NOTE**
The connection in the heater control unit is designed for a current consumption of $I_{max}$ = 0.5 A.

| No. | W-bus | W-bus RV/HD with continuous heating | Cronus |
|---|---|---|---|
| A1 | Heater Thermo Top Evo | Heater Thermo Top Evo | Heater Thermo Top Evo |
| A2 | Control unit | Control unit | Control unit |
| A4 | Telestart T91 / T99 | | |
| A5 | Telestart T100 HTM | | |
| A6 | Fuse holder heating / air-conditioning control unit | Fuse holder temperature sensor W bus | Fuse holder fuse and diagnostics |
| A7 | W-bus temperature sensor | | T-LIN-R module (optional) |
| A8 | PWM Gateway fan controller | PWM Gateway fan controller | |
| A9 | Relay socket with fuses | Relay socket with fuses | |
| A10 | Button TC4 | | |
| A11 | MultiControl | | |
| A12 | ThermoCall TC4 | | |
| A13 | | | Cronus / Webasto passenger compartment control unit |
| A14 | | | Cronus push button |
| F1 | Fuse 20A | Fuse 20A | Fuse 20A |
| F2 | Fuse 30A | Fuse 30A | Fuse 30A |
| F3 | Fuse 1A | Fuse 1A | Fuse 1A |
| F4 | Fuse 25A | Fuse 25A | |
| B1 | Coolant temperature sensor | Coolant temperature sensor | Coolant temperature sensor |
| B2 | Temperature sensor overheating | Temperature sensor overheating | Temperature sensor overheating |
| B3 | Temperature sensor not in use | Exhaust gas temperature sensor | Exhaust gas temperature sensor (optional) |
| M1 | Motor combustion air fan | Motor combustion air fan | Motor combustion air fan |
| M2 | Motor Coolant pump | Motor Coolant pump | Motor Coolant pump |
| M3 | Vehicle blower | Vehicle blower | Motor Second coolant pump (optional) |
| M4 | | | Motor vehicle blower |
| S1 | Switch for vehicle blower | Switch for vehicle blower | |
| S2 | Switch for vehicle blower | Switch for vehicle blower | |
| S3 | | Main switch | |
| E | Glow plug | Glow plug | |
| Y1 | DP42 fuel pump | DP42 fuel pump | |
| Y2 | Coolant switching valve | | Coolant switching valve |
| BA | | Operating indicator | |
| K1 | Fan relay | Fan relay | |
| X1 | 6-pin connector Vehicle signal | 6-pin connector Vehicle signal | 6-pin connector Vehicle signal and coolant pump control |
| X2 | 2-pin connector Power supply | 2-pin connector Power supply | 2-pin connector Power supply |
| X3 | 4-pin connector Temperature sensors | 4-pin connector Temperature sensors | 4-pin connector Temperature sensor for heater |
| X4 | 2-pin connector Coolant pump | 2-pin connector Coolant pump | 2-pin connector Coolant pump |
| X4.1 | 3-pin connector Coolant pump | 3-pin connector Coolant pump | 3-pin connector Coolant pump |
| X5 | 2-pin connector Glow plug | 2-pin connector Glow plug | 2-pin connector Glow plug |
| X6 | 2-pin connector not in use | 2-pin connector Exhaust gas temperature sensor | 2-pin connector Exhaust gas temperature sensor |
| X7 | 2-pin connector Fuel pump | 2-pin connector Fuel pump | 2-pin connector Fuel pump |
| X8 | 2-pin connector Diagnostic connector | 2-pin connector Diagnostic connector | |

| No. | W-bus | W-bus RV/HD with continuous heating | Cronus |
|---|---|---|---|
| X9 | 2-pin connector Diagnosis bridge | 2-pin connector Diagnosis bridge | |
| X10 | 4-pin connector Heater controls | 4-pin connector Heater controls | 4-pin connector Passenger compartment, Cronus |
| X11 | 4-pin connector Wiring harness | | 4-pin connector Passenger compartment, Cronus |
| X12 | 4-pin connector Temperature sensor W bus wiring harness | | 3-pin connectorTemperature sensor and cold start module |
| X13 | 4-pin connector W-bus temperature sensor | | 3-pin connectorTemperature sensor and cold start module |
| X14 | 6-pin connector Telestart T91 / T99 / T100 HTM | | |
| X15 | Coolant switching valve | | |
| X16 | 2-pin connector Coolant pump | 2-pin connector Coolant pump | 3-pin connector Coolant pump |
| X17 | 4-pin connector MultiControl | | 4-pin connector Control element |
| X18 | 4-pin connector Wiring harness | | 4-pin connector Control element |
| X19 | 4-pin connector Wiring harness | 4-pin connector Control elements | 4-pin connector Push button connector |
| X20 | 4-pin connector Wiring harness | | 4-pin connector Push button connector |
| X21 | | | 3-pin connector Adapter for 2-pin coolant pump |
| X22 | 4-pin connector ThermoCall | | 2-pin connector Adapter for 2-pin coolant pump |
| X24 | 4-pin connector Relay socket with fuses | 4-pin connector vehicle connection | |
| X25 | 4-pin connector Air-conditioning control unit | 4-pin connector vehicle connection | |
| 1 | Present in vehicle: PWM gateway socket | | |

# 13 Initial start-up

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

- The heater is fully installed.
- Carefully bleed the coolant circuit and the fuel supply system using the Webasto Thermo Test PC diagnostics. The vehicle manufacturer's specifications should be followed.

Before initial start-up of the heater, the coolant temperature must be < 30°C since the heater does not commence burner operation at high engine temperatures.

The corresponding Webasto diagnostic system must be used for the initial start-up of the heaters:

- **Thermo Top Evo:** Webasto Thermo Test PC-diagnosis (WTT).
- **Thermo Top Evo Smart:** Webasto System Diagnosis (WSD) – LIN Bus-based system diagnosics.

1. Activate corresponding Webasto Thermo Test PC diagnostics, initiate the start-up then follow and carry out the instructions in the indicated sequence.
2. Save or print the final report.
3. Program MultiControl, pair Telestart transmitter.
4. Make settings on A/C control panel according to the "operating instructions".
5. Function check.
6. Switch on the heater via the control element (see control element operating instructions).
7. Function check.

**NOTE**
When using Cronus Smart, be sure to select the corresponding application of the WTT diagnostics.

Observe additional requirements from the operating and installation instructions for the Cronus Smart.

# 14 Technical data

**NOTE**
The technical data apply under the following conditions: ambient temperature: +20°C, geodetic height: 0 m above sea level, rated voltage. The standard tolerances of ±10 % for heaters shall apply if no limits are specified.

Tolerances:
If no limiting values are specified, the technical data below will refer to the usual heater tolerances of ±10% at an ambient temperature of +20°C and at the rated voltage.

## 14.1 Technical data for coolant pump

### 14.1.1 Technical data for coolant pump U4847 econ

| | |
|---|---|
| Coolant pump | U4847 econ |
| Volume flow against 0.1 bar | approx. 900 l/h |
| Rated voltage | 12 Volt |
| Operating voltage range | 10.5 to 17 Volt |
| Rated power consumption | 14W |
| Fuel pump dimensions | Length max. 109 mm<br>Diameter 48.5 mm |
| Weight | Approx. 0.3 kg |

*Table 1: Technical data U4847*

### 14.1.2 Technical data for coolant pump CP500

| | |
|---|---|
| Coolant pump | CP500 |
| Volume flow against 140 mbar | approx. 450 l/h |
| Rated voltage | 12 Volt |
| Operating voltage range | 10.5 to 17 Volt |
| Rated power consumption | 14W |
| Fuel pump dimensions | Length 98 mm<br>Width 53 mm |
| Weight | 0.25 kg |

*Table 2: Technical data CP500*

## 14.2 Technical data

### 14.2.1 Technical data Thermo Top Evo

| Heater | Operation | Thermo Top Evo - B | | Thermo Top Evo – D (also RV and HD) | |
|---|---|---|---|---|---|
| | | **5 kW** | **4 kW** | **5 kW** | **4 kW** |
| ECE approval mark | | R122 E1 00 0258 (heating), R10 E1 04 5627 (EMC) | | | |
| Design | | Heater with evaporator burner | | | |
| Heat flow | Maximum heating capacity<br>Minimum heating capacity | 5.0 kW<br>2.8 kW | 4.0 kW<br>2.8 kW | 5.0 kW<br>2.5 kW / 1.8 kW* | 4.0 kW<br>2.5 kW |
| Fuel | | E0-E10 according to EN 228<br>E85 according to DIN 51625 | | B7 according to EN 590<br>HVO in accordance with DIN EN 15940 | |
| Fuel consumption<br>+/- 10 % | Maximum heating capacity<br>Minimum heating capacity | 0.705 l/h<br>0.395 l/h | 0.560 l/h<br>0.395 l/h | 0.620 l/h (5 kW)<br>0.310 l/h (2.5 kW)<br>0.22 l/h (1.8 kW)* | 0.495 l/h<br>0.310 l/h |
| Rated voltage | | 12 Volt | | | |
| Operating voltage range | | 10 to 16.5 Volt | | | |
| Rated power consumption +/- 10% (without coolant pump and vehicle blower) | Maximum heating capacity<br>Minimum heating capacity | 31 W<br>14 W | 21 W<br>14 W | 31 W<br>12 W (2.5 kW),<br>10 W (1.8 kW)* | 21 W<br>12 W |
| **Ambient temperature in heating mode (Install. space conditions)** | | | | | |
| Heater | | -40 °C to +60 °C | | -40 °C to +60 °C | |
| Fuel pump | | Winter petrol | -40 °C to +10 °C | Arctic diesel | -40 °C to +30 °C |
| | | Summer petrol | -20 °C to +20 °C | Winter diesel | -20 °C to +30 °C |
| **Storage ambient temperature conditions** | | | | | |
| Heater | | -40 °C to +125 °C | | | |
| Fuel pump | | -40 °C to +90 °C | | | |
| Perm. operating pressure | | 2.5 bar | | | |
| Capacity of the heat exchanger | | 0.075 l | | | |
| Minimum volume in coolant circuit | | 2.0 + 0.5 l | | | |
| Minimum volume flow for heater | | 200 l/h | | | |
| $CO_2$ in exhaust gas (permitted function range) | | functional range approx. 8-12 % | | | |
| Dimensions of heater without attached parts. Also see Fig. 2 (tolerance ± 3 mm) | | Length 218 mm<br>Width 91 mm<br>Height 147 mm without coolant connection piece | | | |
| Weight | | 2.2 kg | | | |

*Table 3: Technical data Thermo Top Evo*

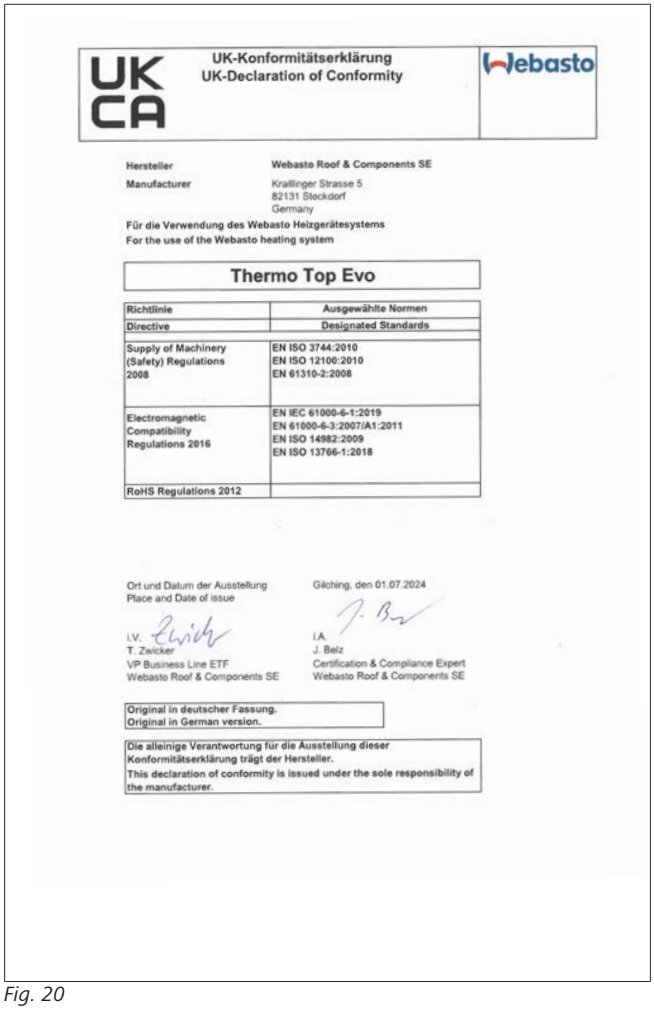
* Thermo Top Evo RV

### 14.2.2 Technical data Thermo Top Evo Smart

| | Thermo Top Evo 4 Smart CAR AM | | Thermo Top Evo 5 Smart CAR AM | | Thermo Top Evo 5 Smart RV/HD | |
|---|---|---|---|---|---|---|
| Model overview | Diesel | Petrol | Diesel | Petrol | Diesel | Petrol |
| ECE approval mark | R122 E1 00 0258 (heating), R10 E1 06 5627 (EMC) | | | | | |
| Heating capacity (partial load/full load) [kW] | 1.8/4.0 | | 1.8/5.0 | | | |
| Fuel consumption (partial load/full load) [l/h] | 0.23/0.49 | 0.28/0.56 | 0.31/0.62 | 0.39/0.70 | 0.31/0.62 | 0.23/0.62 |
| Rated voltage [V] | 12 | | | | | |
| Communication | Analogue / W-bus / LIN / CI-bus | | | | | |
| Rated power consumption (part load/full load) [W] | 12/21 | 15/21 | 12/33 | 15/33 | 12/33 | 12/33 |
| Fuels | Diesel (DIN EN 590) Arctic diesel HVO/GTL (DIN EN 15940) | E0-E10 (EN228) E85 (DIN51625) M15 | Diesel (DIN EN 590) Arctic diesel HVO/GTL (DIN EN 15940) | E0-E10 (EN228) E85 (DIN51625) M15 | Diesel (DIN EN 590) Arctic diesel HVO/GTL (DIN EN 15940) | E0-E10 (EN228) E85 (DIN51625) M15 |
| **Ambient temperature in heating mode (Installation space conditions)** | | | | | | |
| Heater | -40 °C to +60 °C | | | | | |
| **Fuel pump** | | | | | | |
| Summer petrol | - | -20 °C to +20 °C | - | -20 °C to +20 °C | - | -20 °C to +20 °C |
| Winter petrol | - | -40 °C to +10 °C | - | -40 °C to +10 °C | - | -40 °C to +10 °C |
| Winter diesel | -20 °C to +30 °C | - | -20 °C to +30 °C | - | -20 °C to +30 °C | - |
| Arctic diesel | -40 °C to +30 °C | - | -40 °C to +30 °C | - | -40 °C to +30 °C | - |
| **Storage ambient temperature conditions** | | | | | | |
| Heater | -40 °C to +125 °C | | | | | |
| Fuel pump | -40 °C to +90 °C | | | | | |
| Perm. operating pressure | 2.5 bar | | | | | |
| Capacity of the heat exchanger | 0.075 l | | | | | |
| Minimum volume in coolant circuit | 2.0 + 0.5 l | | | | | |
| Minimum volume flow for heater | 200 l/h | | | | | |
| Dimensions of heater without attached parts. Also see Fig. 2 (tolerance ± 3 mm) | Length 218 mm Width 91 mm Height 147 mm without coolant connection piece | | | | | |
| Dimensions (LxWxH) [mm] | 218x91x147 | | | | | |
| Weight [kg] | 2.1 | | | | | |

*Table 4: Technical data Thermo Top Evo Smart*

# 15 Declaration of Conformity



UK-Konformitätserklärung
UK-Declaration of Conformity

Webasto

| | |
|---|---|
| Hersteller<br>Manufacturer | Webasto Roof & Components SE<br>Kraillinger Strasse 5<br>82131 Stockdorf<br>Germany |

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

**Thermo Top Evo**

| Richtlinie<br>Directive | Ausgewählte Normen<br>Designated Standards |
|---|---|
| Supply of Machinery (Safety) Regulations 2008 | EN ISO 3744:2010<br>EN ISO 12100:2010<br>EN 61310-2:2008 |
| Electromagnetic Compatibility Regulations 2016 | EN IEC 61000-6-1:2019<br>EN 61000-6-3:2007/A1:2011<br>EN ISO 14982:2009<br>EN ISO 13766-1:2018 |
| RoHS Regulations 2012 | |

Ort und Datum der Ausstellung
Place and Date of issue
Gilching, den 01.07.2024

i.V. T. Zwicker
VP Business Line ETF
Webasto Roof & Components SE

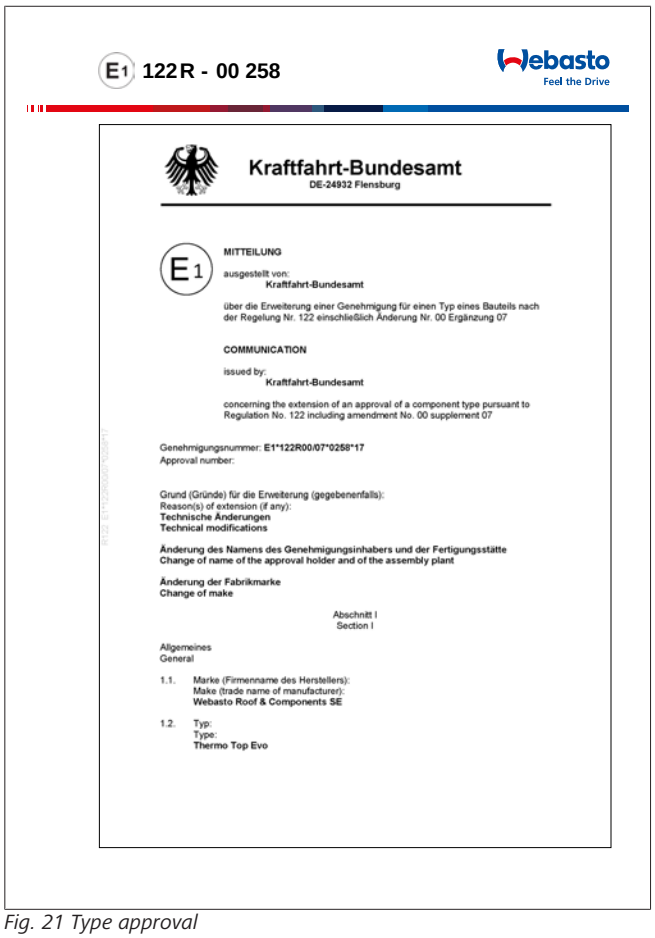
i.A. J. Belz
Certification & Compliance Expert
Webasto Roof & Components SE

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.

*Fig. 20*

# 16 Type approval



E1 122R - 00 258

Webasto Feel the Drive

**Kraftfahrt-Bundesamt**
DE-24932 Flensburg

E1

**MITTEILUNG**

ausgestellt von:
**Kraftfahrt-Bundesamt**

über die Erweiterung einer Genehmigung für einen Typ eines Bauteils nach der Regelung Nr. 122 einschließlich Änderung Nr. 00 Ergänzung 07

**COMMUNICATION**

issued by:
**Kraftfahrt-Bundesamt**

concerning the extension of an approval of a component type pursuant to Regulation No. 122 including amendment No. 00 supplement 07

Genehmigungsnummer: **E1*122R00/07*0258*17**
Approval number:

Grund (Gründe) für die Erweiterung (gegebenenfalls):
Reason(s) of extension (if any):
**Technische Änderungen**
**Technical modifications**

**Änderung des Namens des Genehmigungsinhabers und der Fertigungsstätte**
**Change of name of the approval holder and of the assembly plant**

**Änderung der Fabrikmarke**
**Change of make**

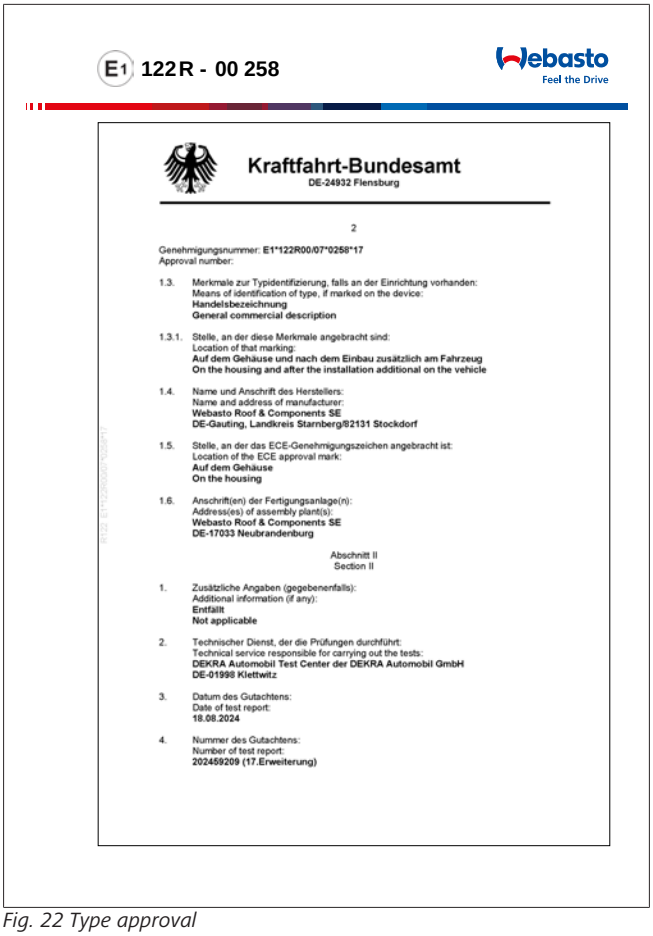
Abschnitt I
Section I

Allgemeines
General

1.1. Marke (Firmenname des Herstellers):
Make (trade name of manufacturer):
**Webasto Roof & Components SE**

1.2. Typ:
Type:
**Thermo Top Evo**

*Fig. 21 Type approval*



E1 122R - 00 258

Webasto Feel the Drive

**Kraftfahrt-Bundesamt**
DE-24932 Flensburg

2

Genehmigungsnummer: **E1*122R00/07*0258*17**
Approval number:

1.3. Merkmale zur Typidentifizierung, falls an der Einrichtung vorhanden:
Means of identification of type, if marked on the device:
**Handelsbezeichnung**
**General commercial description**

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 Roof & Components SE**
**DE-Gauting, Landkreis Starnberg/82131 Stockdorf**

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 Roof & Components SE**
**DE-17033 Neubrandenburg**

Abschnitt II
Section II

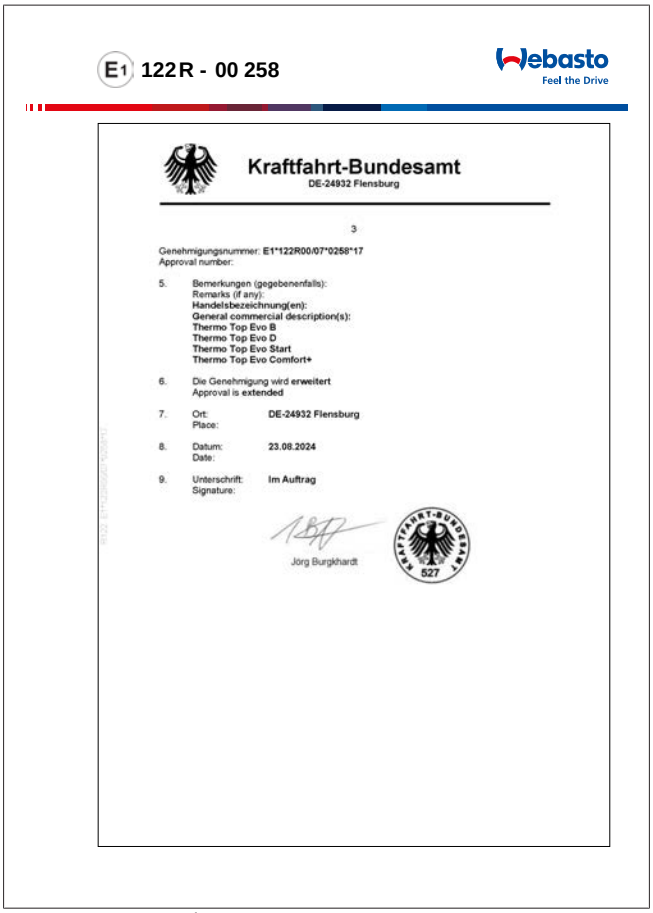
1. Zusätzliche Angaben (gegebenenfalls):
Additional information (if any):
**Entfällt**
**Not applicable**

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 Klettwitz**

3. Datum des Gutachtens:
Date of test report:
**18.08.2024**

4. Nummer des Gutachtens:
Number of test report:
**202459209 (17.Erweiterung)**

*Fig. 22 Type approval*



E1 122R - 00 258

Webasto Feel the Drive

**Kraftfahrt-Bundesamt**
DE-24932 Flensburg

3

Genehmigungsnummer: **E1*122R00/07*0258*17**
Approval number:

5. Bemerkungen (gegebenenfalls):
Remarks (if any):
**Handelsbezeichnung(en):**
**General commercial description(s):**
**Thermo Top Evo B**
**Thermo Top Evo D**
**Thermo Top Evo Start**
**Thermo Top Evo Comfort+**

6. Die Genehmigung wird **erweitert**
Approval is **extended**

7. Ort: **DE-24932 Flensburg**
Place:

8. Datum: **23.08.2024**
Date:

9. Unterschrift: **Im Auftrag**
Signature:

Jörg Burgkhardt

527

*Fig. 23 Type approval*

Europe, Asia Pacific:

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82131 Stockdorf
Germany

UK only:

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