

Operating Instructions

Air Top Evo 3900

Air Top Evo 5500



Feel the Drive

Webasto Thermo & Comfort N.A., Inc.
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Servicing and safety instructions

1. When heater is in use, the surface of the hot air outlet may become hot to the touch. Contact with skin may cause burns.
2. Webasto heaters must be switched "off" when re-fueling at filling stations and/or while loading or unloading flammable materials for transport, to prevent the risk of explosion. Please review the owner's manual for safety and use instructions.
3. The year in which the heater was used for the first time must be permanently displayed on the factory plate by deleting the inapplicable years from the plate.
4. **The heaters are not designed for heating hazardous substance transport compartments.**
5. Claims can only be made if it can be verified that the claimant has complied with the servicing and safety instructions.
6. **The heater may not be operated in enclosed spaces (such as garages) as a result of the risk of poisoning and asphyxiation, even if a timer or Telestart remote is used.**
7. The heater must be checked by an expert at the latest at the start of the cold weather period.
8. In the event of long-lasting heavy smoke development, unusual combustion noises or a smell of fuel or if the heater suffers continuous fault cut-outs with error messages (flashing code), it must be shut down by removing the fuse and must not be reused until it has been inspected by Webasto-trained personnel.
9. **Wherever flammable vapors or dust may form (for example in the vicinity of fuel, carbon, wood dust or cereal stores or the like), the heater must be switched off as a result of the risk of explosion.**

Servicing and safety instructions

10. The heat transfer unit on air heaters is exposed to very high thermal stress and must be replaced by a genuine Webasto spare part ten years after it is used for the first time.

If exhaust lines pass through areas used by personnel, they must also be replaced by genuine spare parts after ten years.

11. The fuel specified by the vehicle manufacturer is suitable for use in the Air Top Evo 3900 B/Air Top Evo 5500 B. Both leaded and unleaded fuel may be used.

The diesel fuel specified by the vehicle manufacturer is suitable for use in the Air Top Evo 3900 D/Air Top Evo 5500 D.

The Air Top Evo 3900 D/Air Top Evo 5500 D heaters are also licensed for use with PME (bio-diesel), which complies with DIN EN 14214.

We know of no negative influences due to additives.

If fuel is extracted from the vehicle's tank, follow the additive instructions issued by the vehicle manufacturer.

If you change to low-temperature fuel, the heater must be operated for approx. 15 minutes so that the fuel system is filled with the new fuel.

12. The temperature in the area around the heater unit must not exceed 85 °C (storage temperature). If the temperature exceeds this level there is a risk of permanent damage to the electronics systems.

13. Non-compliance with the installation instructions and the warnings contained therein will lead to the exclusion of all liability by Webasto. The same applies if repairs are carried out incorrectly or with the use of parts other than genuine spare parts.

14. Keep the hot air inlet and hot air outlet free of dirt and foreign bodies. Soiled or blocked hot air lines may cause overheating, and therefore result in the overheating cut-out tripping.

15. To prevent mechanical parts seizing, the heater should be operated for approx. 20 minutes every four weeks.

16. Do not stand on the heater and do not place any heavy items on the heater or throw items at the heater.

17. Do not place any items of clothing, textiles or similar materials over the heater or in front of the hot air inlet and the hot air outlet.

18. The current of hot air in the heater must not be restricted or blocked by highly flammable substances or materials such as rags, cleaning wool, etc.

19. The heater must not be cleaned with a high pressure cleaner.

Control element



! Changes to the settings on the control element will be carried out with a time delay

Rotary knob for:

- Switching on and off
- Setting the room temperature
- Resetting after a fault cut-out

Indicator/error code display

Switch on

Set the rotary knob on the control element to the desired temperature.



Note:

To prevent the hot and combustion air fan from blocking or scraping, ensure that there are no objects on or against the heater before you switch it on.

SmartTemp Control 2.0



* The micro USB Service Port is used for Webasto heater diagnostic purposes only. This port cannot be used to charge cell phones or other electronic devices.

LCD Screen Symbol Legend

	Heater Mode	Vent Mode
Main Screen	Timer Start Day / Time Timer Active Ambient Temperature Set Temperature	Timer Start Day / Time Ambient Temperature Timer Active
Heat Mode	Runtime Remaining Ambient Temperature User Set Temperature	Mode Indicator Heater ON
Vent Mode	Runtime Remaining Ambient Temperature Fan Speed Indicator (Low - Medium - High)	Mode Indicator Fan ON

Heater ON Example

Press the Webasto button to turn heater on.

Set Temperature Output & Heater Runtime Example

Using the rotary dial and the selection button, follow these steps to set your cab temperature to 70°F with a runtime of 4 hours.

1. Press the Selection button. Using the rotary dial, select: Options > Duration > Timed > Adjust runtime to 4 hours. Confirm the adjustment by pushing the selection button.
2. From the main screen use the rotary dial to adjust the set temperature to 70°F; confirm the adjustment by pushing the selection button.

NOTE: The set temperature can be adjusted quickly even when the heater is running using the same method as above.

Set Timer Example

Set timer to turn on Friday at 6:30AM with a runtime of 60 minutes.

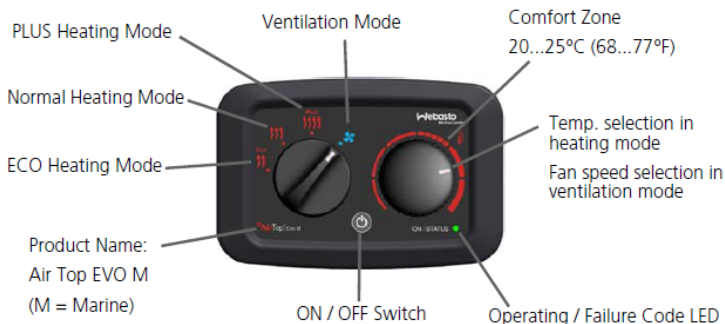
1. Press the Selection button. Using the rotary dial, select Timer.
2. Highlight the timer feature, press the Selection button. Select “edit” from the sub-menu.
3. Adjust and select day for Friday.
4. Adjust and select time for 6:30AM.
5. Adjust and select runtime for 60 minutes.
6. Settings are saved each time the selection button is pressed.

Refer to Menu Descriptions Table for a detailed description of each menu item and its default setting.

	Definitions	Default
Mode	Mode changes the operation of the heater between heat mode and ventilation mode. Status indicator lights will illuminate red for heat mode and blue for ventilation mode when the selected mode is active. Note: Refer to Status Indicator Light description on page 6 for additional Status Indicator explanation.	Heat Mode
Language	Language changes between English, Spanish, and French.	English
Temp Unit	Temp Unit changes between Fahrenheit and Celsius units of measure.	Fahrenheit
Options	Advanced level adjustments; see below.	
Duration	Duration allows for the selection of <u>continuous</u> heater operation or <u>timed</u> operation (30 minutes – 14 hours in 30 minute increments). IMPORTANT: <u>Timed</u> duration is not to be mistaken for Timer functionality. The duration times above are used when turning the heater on manually. I.e. set the heater duration for 8 hours before heading to bed. Note: If <u>timed</u> operation is selected 10 hours is default.	Continuous





LVD	<p>LVD "Low Voltage Disconnect" allows the user to set the battery voltage level at which the Webasto SmarTemp Control 2.0 will shut down the heater.</p> <p>If battery voltage is equal to or less than the threshold selected +0.1v, the heater will not start. I.e. if an 11.5v threshold is selected the heater cannot be started until B+ has reached 11.7v.</p> <p>12 volt - Range between 11v – 12.5v 24 volt - Range between 21v – 25.5v</p>	11.4v 24.2v
Password	<p>A password can be set to prevent access to the advanced "Options" menu. Enter a 4 digit code passcode to begin securing the "Options" menu.</p> <p>Note: This is typically used in fleet vehicle applications.</p>	OFF
PM Reminder	<p>If the heater has not run 30 days, the preventive maintenance (PM) reminder will alert the operator with a message to run the heater for 20 minutes. The indicator lights will flash red as a visual reminder.</p> <p>The operator will have the ability to Start the 20 minute maintenance cycle or delay it via a "Snooze" option.</p> <p>When Snooze is selected the PM reminder will postpone until 12:00PM the following day.</p>	ON
Time & Date	<p>Set time and date using the rotary knob and selection button. 12 (AM / PM) or 24 hour available.</p> <p>The Webasto button can be used to go back to the previous field if additional changes are needed.</p>	12 hour
Offset	<p>Depending on the installation location, the temperature reading may vary slightly. The Offset feature allows a temperature adjustment of +/- 9°F (+/- 5°C). Adjust this as necessary to obtain the most accurate ambient temperature reading.</p>	0°
Default	<p>Default allows the user to perform a factory reset of the control settings.</p> <p>Note: Heater information will NOT be affected.</p>	N/A

Control Panel Air Top Evo MC04



General information

Using the Control Panel Air Top Evo MC04, you can select the functions of the Webasto air heaters Air Top Evo.

	Eco	Economy mode
	Normal	Comfort heating
	Plus	Fast heating
	Fan	Fan

The control panel is to switch on/off, as well as to preselect the operation modes and the interior temperature. For technical data as well as references to the installation, see the installation instructions of the specific heater.

Operation

 Main switch ON / OFF

Switching on the heater

By pressing the main switch ON / OFF the heater is activated. After switching on, the main switch illuminates and the indicator "ON / Status" lights to confirm the heater operation.

Switching off the heater

By pressing the main switch ON / OFF again the heater operation is stopped.

After switching off, the lighting of the main switch is also off.

The indicator "ON / Status" goes off after approx. 3 minutes (cooling down of the heater).

Mode selector knob

With the mode selector knob you can select the desired functions of your heater by placing the index on the desired symbol.

Temperature selector

You can adjust the desired interior temperature with the temperature selector. Preferably the temperature selector should be in the marked range of the scale (comfort range).

Error code

Faultless operation:

The normal operation of the equipment is represented by the status indicator, illuminating green light.

After switching off the heater (main switch) the status indicator shows the normal cooling down process of the heater. After the heater has cooled down normally, the status indicator shuts off.

Fault:

During an operational fault a flashing code is displayed by the status indicator. This function enables a professional workshop to solve the fault in a fast way. In this case please visit a Webasto service station!

Actions in event of faults

If an error occurs, first check the fuse and plug connections to ensure that they are in proper condition and connected correctly.

If the actions described below do not rectify the error, have the heater checked by Webasto-trained personnel.

Heater unit cuts out automatically

Cause

No combustion after start and repeat start

Flame extinguishes during operation

Heater unit overheats and indicator flashes

Vehicle voltage too low

Remedy

Switch heater unit off (for at least 2 seconds) and then on again

Switch heater unit off (for at least 2 seconds) and then on again

Make sure that hot air can flow freely, allow heater unit to cool down, Switch heater unit off (for at least 2 seconds) and then on again

Charge battery
Switch heater unit off (for at least 2 seconds) and then on again

Heater unit emits black smoke

Cause

Combustion air and/or exhaust system blocked

Remedy

Check combustion air and exhaust system for blockage

Error code output on combination timer or control element

If the system is fitted with a combination timer, when an error occurs an error code is output on the timer's display until the heater has been rectified.

The error code is output if the heater is fitted with a control element after an error has occurred by the switch-on indicator/error code indicator flashing. After a burst of fast flashes the error code will be output by a sequence of long flashes, the number of which is shown in the table below.

Error code	Meaning
F 00	Control unit error
F 01	No start (after 2 starting attempts)
F 02	Flame failure (at least > 3)
F 03	Undervoltage or overvoltage
F 04	Premature flame recognition
F 06	Temperature sensor interrupt or temperature sensor short circuit
F 07	Metering pump interrupt or metering pump short circuit
F 08	Fan motor interrupt or fan motor short circuit or fan motor overload or blocked
F 09	Glow plug interrupt or glow plug short circuit
F 10	Overheating
F 11	Overheating sensor interrupt or overheating sensor short circuit
F 12	Heater unit lock-out
F 14	Overheating sensor installed incorrectly
F 15	Setpoint generator short circuit

If serious faults, such as overheating or no start, occur frequently, the heater will be set to permanent fault lock-out (F 12) and cannot be restarted until it has been repaired by Webasto-trained personnel.

Heater Lockout Reset Procedure

The control unit continuously monitors the heater operation. The control unit identifies errors on individual heater components and faults during operation. Should the control unit experience component errors and operational faults, the heater may be shut down.

Causes:

The heater is shut down (fault lock-out) if:

- No or incorrect start
- Temperature sensor defective
- Overheating sensor interrupt or short circuit
- Overheating sensor installed incorrectly
- Ceramic glow pin interrupt or short circuit
- Fan motor overload or blocked or short circuit or interrupt
- Error in the fuel metering pump or circuit
- Under voltage or over voltage for longer than 20 seconds.
- Control unit defective
- Overheating

Effects:

The fuel supply is stopped if the heater overheats.

The heater continues to run in the same way as if it is switched off manually.

After the heater stops the control unit may set in fault lock-out mode.

Heater Lock out Reset Procedure:

1. Using switch or standard timer control, turn heater on
2. Remove the main power connection to heater from battery or pull fuse for a minimum of 20 seconds.
3. Using switch or standard timer control, turn the heater off.
4. Reinstall main heater power connection where previously disconnected.

IMPORTANT: Heater fault codes can be read using PC Diagnostics, however, the heater lockout reset must be manually performed using the procedure stated above.

Limited Non-Transferable Warranty

Webasto Thermo & Comfort North America, Inc. (hereinafter referred to as Webasto) warrants their heaters and heater kits against defects in material and workmanship for two (2) years effective at the time of installation or vehicle registration date for original equipment installation (OEM). This warranty period may not exceed three (3) years from the original date of sale by Webasto. This warranty period may be superseded by written contractual agreements.

All models are limited to 2,000 maximum operating hours.

Replacement parts are covered for six (6) months or the remainder of the original warranty period, whichever is longer.

The intent of the Webasto warranty is to protect the original end-user of the heater from defects and provide free repair and replacement of defective parts in the manner provided herein. During the warranty period, the exclusive remedy will be for Webasto, at their discretion, to repair or replace those parts which are demonstrated to be defective in material or workmanship.

While warranty is provided to the "original end-user", it is to be administered and serviced through an authorized Webasto dealer in accordance with the Webasto warranty policy or contractual agreement between Webasto and a second party.

To locate the nearest Webasto authorized dealer for warranty service:

visit <http://www.techwebasto.com> or call (800) 860-7866 in USA, (800) 667-8900 in Canada.



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