

Luftheizgeräte HL 90

HL 90 air heaters

Appareils de chauffage à air chaud HL 90

Riscaldatori ad aria HL 90

Luchtverwarmingsunits HL 90

Ilmalämmitin HL 90



Operating and servicing manual

HL 90

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General information

Dear Webasto Customer!

We assume that the workshop / service centre that carried out the installation explained to you the operation and principle of functioning of your new heater to your complete satisfaction. With these operating instructions we would like to provide you with an overview of the use of the HL 90 heater.

Maintenance and safety instructions

Within the territory governed by European Directive 70/156/EEC and/or EC/2007/46 (for new vehicle types from 29/04/2009), there are homologation approvals for the HL 90 heaters in accordance with the ECE-R 122 (Heating) and ECE-R 10 (EMC).

The unit must be installed as set out in the supplied installation manual.

The year in which the heater is used for the first time must be permanently recorded on the heater's rating plate by deleting the inapplicable year figures.

Check the openings of the combustion air inlet lines and exhaust pipe opening and clean them if they are dirty.

Switch off the auxiliary heater before refuelling.

The air heater's heat exchanger can be used for a maximum of 10 years and must then be replaced by the manufacturer or one of its authorised workshops using a genuine spare part. A label must then be affixed to the heater showing the date of sale of the heat exchanger and the wording "Genuine spare part". If exhaust pipes pass through compartments used by people, the pipes must also be replaced by genuine spare parts after 10 years.

The heater must not be operated:

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Danger of fire, explosion and suffocation

- In filling stations and tank farms.
- In places where explosive vapours or dust may build up (e.g. near fuel, coal, wood dust or cereal stores).
- Close to inflammable materials such as: Dry grass and leaves, cardboard packaging, paper, etc.
- In enclosed rooms (e.g. garages), not even via the timer or Telestart.
- For heating compartments in which hazardous goods are transported.
- Without an additional shield over the heat exchanger to prevent people or flammable materials touching the surface of the heater inadvertently.

The heater **must not**:



- be exposed to temperatures of more than 85 °C (storage temperature), otherwise the electronics may suffer permanent damage.
- be blocked by articles of clothing, textiles or similar material at the heating air inlet.
- cleaned with a power washer.

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The heater **must**:

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- be operated with the fuel specified on the rating plate and at the nominal voltage specified on the rating plate.
- be switched off if considerable quantities of smoke are generated, in case of unusual combustion noises or if you smell fuel. Switch it off by removing the fuse. The heater must not be re-started until the unit has been checked by personnel duly trained by Webasto.
- be checked by a specialist at the latest at the start of the heating period.

Liability:



- 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 invalidates the type approval for the heater and its homologation / ECE type permit.
- Liability claims can only be lodged if the claimant can prove that he has complied with the servicing and safety instructions.

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Standard clock

Backwards button

Display panel

Forwards button

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Button for
immediate
heating

Switch-on indicator
(operating indicator)

Time button

2nd programmed time button

1st programmed
time button

Ready indicator

Operation of the heater

The air heater can be started using a switch, a mechanical cabin thermostat or a digital timer, according to its equipment.

General

The time when heating starts can be programmed using the digital timer within a time range from 1 minute to 23 hours 59 minutes.

The on-time can be 59 or 29 minutes starting from the programmed time or after “immediate heating” is pressed.

Continuous operation is also possible after pressing the “immediate heating” button, if the unit is connected accordingly.

Operation

The heater switches off automatically after a short run-on time when the ignition is switched off.

Switching on




Manual: Press the immediate heating button .

Automatic: By programming the start of heating.

Switching off

Press the immediate heating button .




Setting the time/day

Press the Time button  at the same time as the Forwards button  or Backwards button .


Checking the time



With the ignition off: Press the Time button .

Programming the start of heating

Press the 1st programmed time button  at the same time as the Forwards button  or Backwards button  until the required time appears on the display panel.

Code number 1 remains on display, the Ready indicator lights up.

The 2nd programmed time button  can be used for programming another time. The procedure is the same as for programming the 1st programmed time.

Pressing the 1st programmed time button  or 2nd programmed time button  activates this setting and deactivates the other. The set times are retained.

Checking programmed times

Press the 1st programmed time button 1 or 2nd programmed time button 2 briefly.

The display panel shows the programmed time and the code number.

Deleting programmed times

Press the 1st programmed time button 1 or 2nd programmed time button 2 briefly.

The programmed time and the code number disappear from the display panel.

Operation with a switch

For heating with a switch, it is possible to select between full load or part load. Control can be effected by incorporating a thermostat.

Switch



Operation with a cabin thermostat

With the cabin thermostat (mechanical), it is possible to select between full load/part load or part load/off operating modes.

- Full load/part load operating mode

The heater switches over to part load operation when the temperature set on the cabin thermostat is reached (upper switching point of the cabin thermostat).

The heater is switched back to full-load if the temperature drops to the lower switching point of the cabin thermostat.

- Part load/off operating mode

The heater is switched off when the temperature set on the cabin thermostat is reached (upper switching point).

The switch-on indicator remains lit.

Cabin thermostat

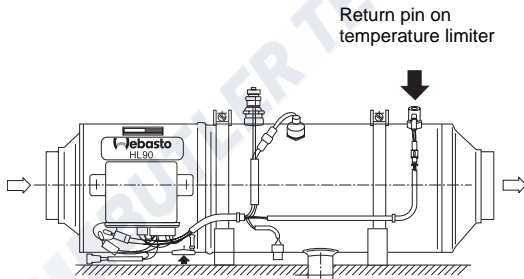


Troubleshooting

In the event of a malfunction, fuses and electrical connections should be checked for condition and security.

If the measures described below do not rectify the malfunction then the heater must be checked by personnel duly trained by Webasto.

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Heater switches off automatically (= fault lock-out)

Cause	Remedy
No combustion after start	Switch heater off and then on again
Flame extinguishes during operation	Switch heater off and then on again
Heater overheats	Check that the heating air flow is clear Reset temperature limiter Switch heater off and then on again
Electrical system voltage too low	Charge battery Switch heater off and then on again

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Heater produces black smoke

Cause	Remedy
Combustion air and/or exhaust system blocked	Check that the combustion air and exhaust systems are clear

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Bei mehrsprachiger Ausführung ist Deutsch verbindlich.

Die Telefonnummer des jeweiligen Landes entnehmen Sie bitte dem Webasto Servicestellenfaltblatt oder der Webseite Ihrer jeweiligen Webasto-Landesvertretung.

In multilingual versions the German language is binding.

The telephone number of each country can be found in the Webasto service center leaflet or the website of the respective Webasto representative of your country.

Dans le cas d'une version rédigée en plusieurs langues, l'allemand est alors la langue qui fait foi. Pour trouver le numéro de téléphone du pays concerné, veuillez consulter le dépliant des points-service Webasto ou la page web de la représentation Webasto de votre pays.

Nel caso di una versione plurilingue il tedesco è vincolante.

I numeri di telefono dei diversi Paesi sono riportati sul pieghevole relativo ai centri di assistenza Webasto oppure sul sito Internet del proprio rappresentante di riferimento Webasto.

Bij een meertalige versie is de Duitse versie bindend.

Het telefoonnummer van het betreffende land kunt u vinden op het Webasto Servicepuntenoverzicht of de website van de Webastovestiging in uw land.

Useampikielisten versioiden yhteydessä saksankielinen on sitova.

Kunkin maan puhelinnumero löytyy Webasto huoltopiste-esitteestä tai kyseisen maan Webasto-edustajan internetsivuilta.

Webasto Thermo & Comfort SE
Postfach 1410
82199 Gilching
Germany

Visitors' address:
Friedrichshafener Str. 9
82205 Gilching
Germany

Internet: www.webasto.com