

STARTUP

The Instant Hot Water and Heating System is activated by means of the switch on the control panel. A green light will illuminate, indicating that the water heater has begun operation. The heater start-up phase can last 2 to 3 minutes and comprises of the ventilation of the heater, the burner ignition and the control of the flame

To obtain fresh hot water whilst also heating the interior of the motor home,

Select the speed on the fan heater switches to give the required volume of hot air to be delivered by the fan heaters (the fan heaters are regulated by the room thermostat)

After approximately 5 minutes (after combustion has been established) the plate heat exchanger should deliver hot water almost straight away. The safety thermostatic mixing valve limits the water temperature to approximately 48°C. (this threshold can be regulated between 30 and 48°C)

The heating system utilises the vehicle's own diesel fuel supply. The heater's "intelligent" operating system allows it to be much more economical when in constant heating use by adjusting its heat output accordingly between 2.5-5.2kW output. With both fan heaters on high speed the system will draw approximately 4 to 5 Amps, so if you are not connected to a mains electricity supply, it is advisable to start the engine of the motor home at least once a day, for approximately 15 to 30 minutes in order to recharge the batteries

External temperatures of - 20 °C and below can result in a temporary loss of vehicle battery capacity from 25 to 50%, therefore good maintenance of the vehicle's batteries is essential, ideally supported by using the charging system of the Motor Home

The heating circuit must always be protected by anti-freeze with a corrosion inhibitor, and for extreme winter conditions a winter grade fuel is recommended. Whenever the motor home is not in use the fresh water circuit must be drained

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Summer Mode

In warmer conditions, when you do not require any heating but only hot water, leave the blowers turned off & fresh hot water will be produced much faster. Also the current draw of the heating system will be much less.

The system only needs to be switched on for the period of hot water requirement. Switch the system off when not required.

SHUT DOWN

When the heater is switched off by means of the switch on the control panel the green light will extinguish and the heater will begin its shut down cycle. This phase includes purging of the combustion chamber and will last approximately 2 – 3 minutes before the combustion air fan automatically switches off. The blowers will also switch off automatically.

In Winter when the system is not in use. Drain the fresh water system. There maybe an optional fresh water drain tap under the plate heat exchanger.

The Webasto heater coolant circuit uses an Antifreeze Mixture. Use the same ratio as recommended by the vehicle manufacturer. For further information refer to the product installation/operation handbook.

Rated Heat Output	Full Heat Reduced Heat	kW	5.2 2.6
Fuel Consumption	Full Heat Reduced Heat	Ltrs/hr	0.59 0.29
Heater Electrical Input (Not including blower)	Full Heat Reduced Heat	W	46 36
Weight of Heater		kg	2.9

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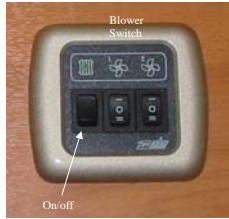
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Operation Guide to Webasto Thermo Top C300 Motorhome Diesel Hot Water & Heating



The Webasto Diesel Heating System

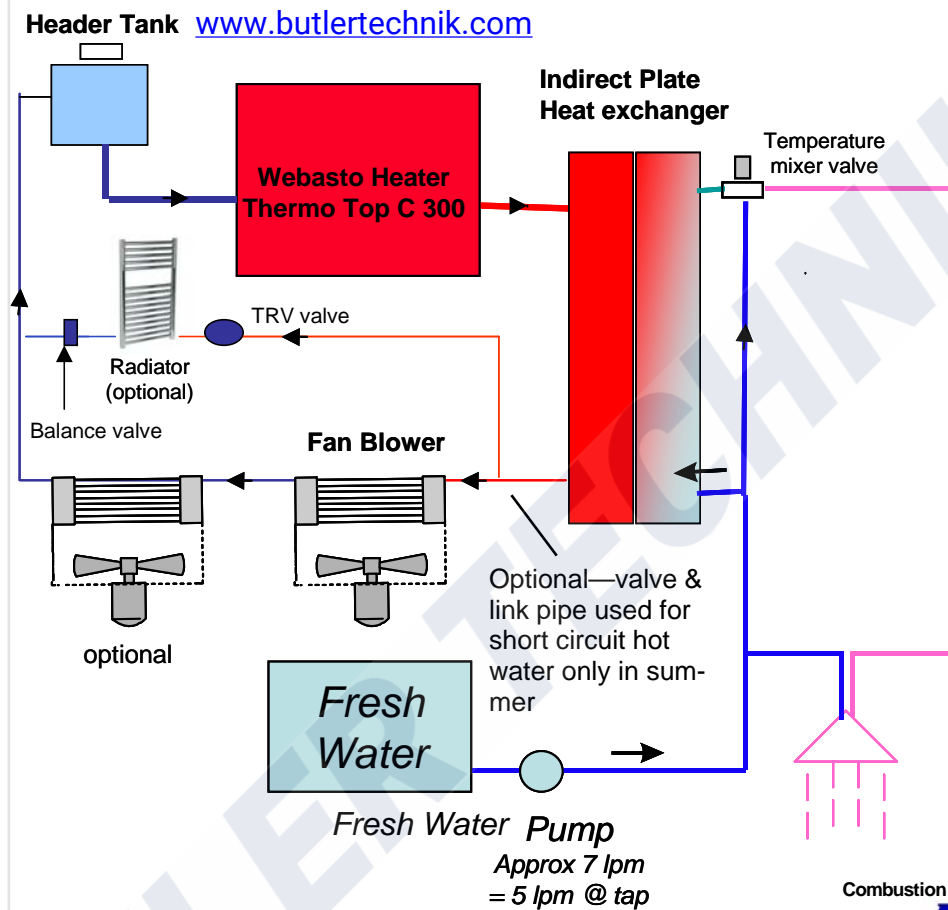
THE CONTROL PANEL - is most often located close to the door to the living area of the vehicle. (Used for activating the heater, a green light illuminates during operation, and for the selection of the fan heaters high and low speed). Close by this panel is the **ROOM THERMOSTAT**,



THERMOSTAT—this is used to regulate the ambient temperature in the living area. This is adjusted to a comfortable room temperature. Turning the dial clockwise requests a higher temperature. When this point is reached then the blower boxes will switch off. The blowers will then turn back on when the interior temperature drops below the dial setting

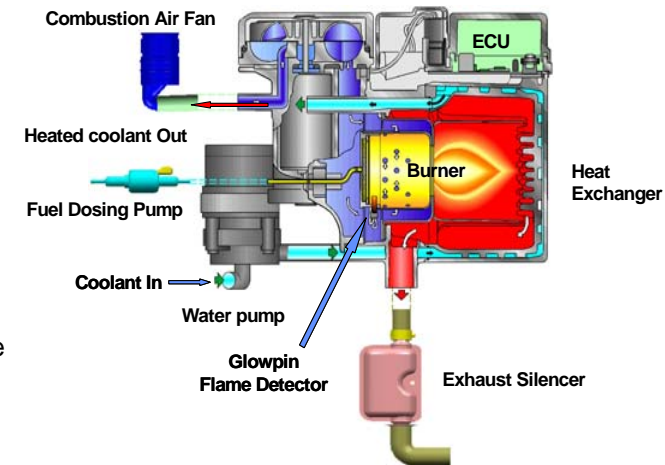


THE THERMOSTATIC MIXER VALVE – This is used to determine the hot water temperature supplied to the taps (adjustable from 30 to 48°C, anti-clockwise to increase the temperature, clock-wise to decrease the temperature). **Typically this is around 42-45c. Adjust as required. Anti clockwise = hotter (+)**



The indirect plate heat exchanger is made up from a series of plates which separate fresh water from the coolant giving 2 independent circuits. A transfer of heat takes place when the fresh water circuit is passed over the Webasto coolant circuit plates. Maximum heater energy is given to the blowers until a demand for hot water is received. A thermostatic mixer valve is fitted to control the hot water temperature to the taps.

This installation uses an independent self contained coolant system to provide heating and hot water. This is achieved very quickly due to a small coolant circuit being used which has a very quick warm up time, the hot water is produced via a plate heat exchanger therefore the hot water is ready in around 5 minutes. The Webasto heater is typically mounted externally on the vehicle, whilst the header tank and plate heat exchanger utilise minimal interior space. The blower units would be mounted in the area where the heat is most required i.e. living area and the rear. These 2 speed blowers can operate independently or together & are controlled by a thermostat. Heating & hot water on the move is possible. The bypass (optional) is used for hot water only in order to achieve a quick heat up time.



Operation— Once activated, the Webasto Thermo Top C heater will use the vehicle's own fuel in a combustion process to heat the coolant via a heat exchanger. The heated coolant is then circulated round the heating circuit passing through the fresh water plate heat exchanger & blower heaters by an integrated water pump. The Webasto unit is self regulating & operates in a similar way to a domestic central heating system.