

STOP

DON'T PANIC

READ THE INSTRUCTIONS

dh15oe

HYDRONIC DH15oe HOT WATER INSTALLATION MANUAL

dieselheat

www.dieselheat.com.au

DH15oe 水暖式热水系统

安装手册

DH15oe / DH15oe Duo

V1 · 2026

请先停下来

不要慌张

请阅读安装说明

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中英对照版说明

本版本使用标准现代汉语及简体中文。左侧完整保留原英文页面，右侧增加对应中文译文及图示文字对照。原图、尺寸、接线、页码和二维码均保留；中文区域不重复插入原图。

目录中的页码均指左侧原手册的印刷页码；封面不计入原页码。

译注：原文中的待核实内容

本手册适用于 Webasto 系统。原文第 21 页仍包含 Eberspächer / CAN 通信的故障排查内容，与第 12 页关闭 CAN 通信的要求不一致。译文按原文保留，并在相关位置加注说明。

第 17 页的照片更新提示以及其他原文表述差异也予以保留，未擅自修改安装要求。

Installation Guidelines **2**
Introduction - Principles of Operation 2
Options For DH Hydronic oe System Controls **4**
Set Up the Tank 5
Coolant Circulation Setup 5
Case 1: Hot water only installations 6
Case 2: Installation – Single Fan Head (Close to Hot Water System) 6
Case 3: Installations Requiring 3-Way Bypass Valves 7
System Cooling and Ventilation **8**
Air Heating **9**
Fan Head Installation 9
Plumbing the Coolant Hoses 10
Coolant 10
Water and Air Temperature Control **11**
Controlling The Air Temperature 11
Optional Remote Temperature Sensor for Hydronic Thermostat 13
Optional Fuel Level Sensor for Hydronic Thermostat 13
Tempering Valve - Controlling Water Temperature 13
Watermark Approval 13
Fuel System **14**
Electrical Connection **15**
Combustion Inlet and Exhaust **16**
Combustion Air 16
RV Exhaust 17
Commissioning **18**
Coolant System Filling and Pump Priming 18
Troubleshooting: Coolant Not Circulating 19
Initial Startup 19
Post Initial Startup 20
Commissioning Troubleshooting 21
TWO YEAR PRODUCT WARRANTY 23

目录

安装指南 2
简介：工作原理 2
DH Hydronic oe 系统控制方案 4
水箱设置 5
冷却液循环设置 5
方案 1：仅供应热水 6
方案 2：单个暖风机，靠近热水系统 6
方案 3：需要三通旁通阀的安装 7
系统冷却与通风 8
空气供暖 9
暖风机安装 9
冷却液软管连接 10
冷却液 10
水温与室温控制 11
室温控制 11
水暖温控器选配远程温度传感器 13
水暖温控器选配燃油液位传感器 13
恒温混水阀：控制水温 13
WaterMark 认证 13
燃油系统 14
电气连接 15
燃烧进气与排气 16
燃烧空气 16
房车排气系统 17
调试 18
冷却液系统加注与泵的灌注排气 18
故障排查：冷却液不循环 19
首次启动 19
首次启动后的检查 20
调试故障排查 21
两年产品保修 23

Installation Guidelines

Dieselheat provides this installation manual to help ensure your system is set up correctly. Please read it carefully—many product issues come from poor installation practices. Incorrect installation can cause reduced performance, damage, or even failure.

We take pride in helping our customers achieve a successful installation and enjoy the best performance from their new diesel hot water system. If you have any questions after reading this guide, please contact us.

This manual covers installation of the **DH15oe** and the **DH15oe Duo** for **RV** use.

Relevant extracts from the **Webasto Thermo Top Evo Technical Manual** are included for convenience. Please note this is not the complete manual. For the full version, scan QR code.

Introduction - Principles of Operation

DH15 hydronic hot water heaters operate by transferring the energy from coolant heated by the diesel furnace to heat exchangers. The primary heat exchanger is the domestic water plate heat exchanger installed inside the DH15oe tank. An optional cabin fan heater (air heater) can also be used.

Diesel Coolant Furnace

The diesel coolant furnace is the heart of the system. It is the component that burns the diesel/air mixture to generate heat. The heat is transferred to the coolant, which passes through the water jacket surrounding the furnace.

Hot coolant is circulated via the pump that is supplied with the furnace.

Important Considerations

- **Dust Ingestion:** Diesel appliances are sensitive to dust. Carefully consider the location of the air inlet and the system itself to minimise the risk of dust being drawn into the combustion air intake.
- **Ventilation:** The Thermo Top Evo Furnace requires a supply of cool air for the combustion intake. For systems installed in small spaces the system needs to be adequately ventilated, or the combustion air intake must be positioned so that it receives cool air from outside the enclosure.
- **Exhaust Systems:** Never connect or combine exhausts from different devices. Each unit must have its own separate exhaust system.
- **Fuel Supply:** Keep fuel lines and plumbing as simple as possible to reduce the risk of air leaks. Always use the supplied fuel line—do not substitute with alternative products.
- **Power Isolation:** Avoid installing main power isolation switches on the diesel furnace. Cutting power while the unit is running bypasses the proper shutdown and cooldown sequence, which can lead to damage.
- **Combustion Air Supply:** Ensure there is an adequate supply of combustion air. If the unit is installed in a sealed enclosure, either the door must remain open during operation or an air inlet pathway must be provided. Insufficient air supply can lead to

安装指南

Dieselheat 提供本安装手册，旨在帮助您正确安装系统。请仔细阅读：许多产品问题源于安装不当。错误的安装可能导致性能下降、损坏，甚至故障。

我们致力于帮助客户顺利完成安装，充分发挥新柴油热水系统的性能。阅读本指南后如有疑问，请联系我们。

本手册涵盖 DH15oe 和 DH15oe Duo 在房车上的安装。

为方便查阅，本手册收录了 Webasto Thermo Top Evo 技术手册的相关摘录，但并非完整技术手册。请扫描左侧二维码获取完整版本。

简介：工作原理

DH15 水暖式热水器通过换热器，将柴油加热炉加热后的冷却液中的热量传递出去。主要换热器是安装在 DH15oe 水箱内部的生活用水板式换热器。也可以选配舱室暖风机（空气加热器）。

柴油冷却液加热炉

柴油冷却液加热炉是系统的核心。它燃烧柴油与空气的混合物产生热量。冷却液流经加热炉周围的水套时吸收这些热量。

热冷却液由加热炉随附的循环泵驱动循环。

重要注意事项

• 灰尘吸入：柴油设备对灰尘敏感。请认真选择进气口和系统的安装位置，尽量减少灰尘被吸入燃烧进气口的风险。

• 通风：Thermo Top Evo 加热炉的燃烧进气需要较凉的空气。安装空间较小时，应保证充分通风，或将燃烧进气口置于能够从箱体外吸入较凉空气的位置。

• 排气系统：切勿连接或合并不同设备的排气管。每台设备必须使用独立的排气系统。

• 燃油供应：尽量简化燃油管路，减少漏气风险。必须使用随附燃油管，不得用其他产品替代。

• 电源隔离：避免在柴油加热炉主电源上安装隔离开关。运行中断电会跳过正常停机及冷却程序，可能造成损坏。

• 燃烧空气供应：保证充足的燃烧空气。设备安装在密闭箱体内时，运行时必须保持箱门开启，或设置进气通道。进气不足会导致积碳，并很快需要维修保养。（接下页）

soot build-up and rapid servicing requirements.

- **Service Access:** All diesel furnaces require periodic maintenance. Install the system in a location where the furnace can be easily accessed and removed for servicing.
- **Coolant Filler Cap:** The coolant filler cap should be positioned for easy access, allowing for straightforward system refilling.

Operating Considerations

- Generally, units are designed to be switched on when needed and turned off when not in use. Extended periods with the unit left in standby are not recommended.
- Never store fuel in clear fuel tanks exposed to sunlight. This will cause fuel degradation or algae growth that can clog the fuel pump.
- Try to start showers when the furnace is running, not in standby, as the furnace restart time can reduce the amount of available hot water.

Special Notes

Do not connect power to the furnace until the installation is 100% complete.

Fault Codes are indicated by flashing the LED in the on/off switch.

Never start the furnace without coolant in the system.

Component Location

The DH15oe kit is designed to have the tank and furnace mounted together and this is how it is shipped by default.

Note: The coolant pump news to be installed at or below the bottom of the coolant tank to ensure easy priming.

Note: All diesel furnaces require servicing from time to time, so the furnace should always be installed in a location where it can be easily removed.

Hot Water Service Tank Locations

In most situations, the hot water service tank is mounted in the same compartment where a typical hot water service would be fitted.

Hot Water Service Tank Mounting:

- The tank must be mounted vertically with the filler cap on top.
- The filler cap should be easily accessible to fill the system and periodically check the coolant level.
- The tank must be supported from underneath.

安装与运行注意事项（续）

燃烧空气供应不足会导致积碳，并很快需要维修保养。（续前页）

• 维修通道：所有柴油加热炉都需要定期保养。安装位置应便于接近和拆下加热炉进行维护。

• 冷却液加注盖：应便于接近，以方便补充冷却液。

运行注意事项

• 通常应按需开启设备，不用时关闭。不建议长时间保持待机。

• 切勿将燃油储存在受阳光照射的透明油箱中。这会使燃油变质或滋生藻类，从而堵塞燃油泵。

• 尽量在加热炉运行时开始淋浴，而非在待机时开始；加热炉重新启动所需的时间可能减少可用热水量。

特别提示

安装全部完成之前，不得给加热炉接通电源。

故障码通过启停开关上的 LED 闪烁显示。

系统中没有冷却液时，切勿启动加热炉。

部件安装位置

DH15oe 套件设计为水箱和加热炉安装在一起，默认按这种方式出厂。

注意：冷却液泵应安装在冷却液水箱底部的高度或更低处，以便灌注排气。

注意：所有柴油加热炉都需要不时进行维护，因此安装位置必须便于拆卸。

热水系统水箱的位置

多数情况下，热水系统水箱可安装在通常安装热水器的舱室内。

热水系统水箱固定

• 水箱必须竖直安装，加注盖朝上。

• 加注盖应便于接近，以方便加液和定期检查液位。

• 必须从底部支撑水箱。

Options For DH Hydronic oe System Controls

Controller	Capability
 Dieselheat Thermostat V4	Can Do • Room temp control via auto fan speed control • 3 Speed manual fan control • Webasto furnace on/off via start signal • Fuel level (optional) Not Supported • Hot water readiness • Fault codes or diagnostics
 Webasto On/Off Switch	Can Do • Turn the heater on/off • Display fault codes via flashing LED

DH Hydronic oe 系统控制方案

Dieselheat V4 温控器

可实现：

• 通过自动调节风速控制室温。

• 三档手动风速控制。

• 通过启动信号开启 / 关闭 Webasto 加热炉。

• 燃油液位显示（选配）。

不支持：

• 热水就绪状态显示。

• 故障码显示或诊断。

Webasto 启停开关

可实现：

• 开启 / 关闭加热器。

• 通过 LED 闪烁显示故障码。

左侧表格文字对照

Controller：控制器

Capability：功能

Can Do：可实现

Not Supported：不支持

Dieselheat Thermostat V4：Dieselheat V4 温控器

Webasto On/Off Switch：Webasto 启停开关

Set Up the Tank

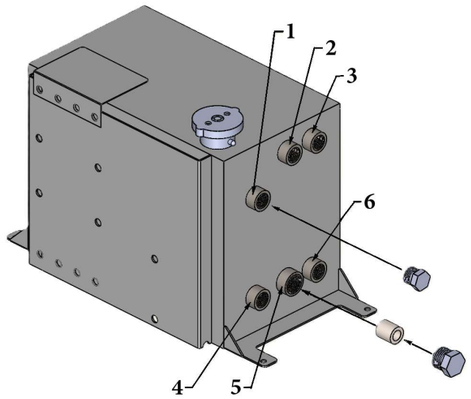
The tank is shipped with the tempering valve installed and these connections are pressure tested prior to shipping.



All connections for coolant on the tank need to be sealed with either thread tape or Loxeal 58-11 to ensure there are no coolant leaks.

Coolant Circulation Setup

The system contains a coolant bypass hole inside the ¾ connector (position 5) on the tank. This hole allows coolant to exit the plate heat exchanger and return to the tank without the need for external plumbing.



This hole can be blocked by inserting a bypass hole blocking ring into the ¾ fitting prior to installing a hose tail.



Connection Ports

1. Coolant return (from optional air heating) or plug.
2. Coolant in from furnace
3. Hot water out
4. Coolant out to pump inlet
5. Coolant out (to optional air heating) or plug.
6. Cold water in

It is important to configure the tank properly to ensure good performance. Use the following scenarios to configure your tank.

水箱设置

水箱出厂时已安装恒温混水阀，这些连接在发货前已经过压力测试。

水箱上的所有冷却液接头均需使用螺纹密封带或 Loxeal 58-11 密封，确保冷却液不泄漏。

冷却液循环设置

水箱的 ¾ 英寸接口（位置 5）内部设有冷却液旁通孔。冷却液可由板式换热器流出，经此孔返回水箱，无需外接管路。

安装软管接头之前，在 ¾ 英寸接口内装入旁通孔封堵环，即可封闭此孔。

图示：连接口编号

1. 冷却液回流口（来自选配暖风系统），不用时装堵头。
2. 加热炉冷却液入口。
3. 热水出口。
4. 冷却液出口，连接循环泵入口。
5. 冷却液出口（通往选配暖风系统），不用时装堵头。
6. 冷水入口。

重要提示

要获得良好性能，必须正确配置水箱。请根据后续安装方案选择相应配置。

图示文字对照

Connection Ports：连接口

Bypass hole blocking ring：旁通孔封堵环

Hose tail：软管接头

Coolant：冷却液

Case 1: Hot water only installations.



For hot water only installations, connectors 1 and 5 should be blocked with the supplied plugs. The bypass hole blocking ring should not be installed.

Case 2: Installation – Single Fan Head (Close to Hot Water System)



For installations with one fan head located:

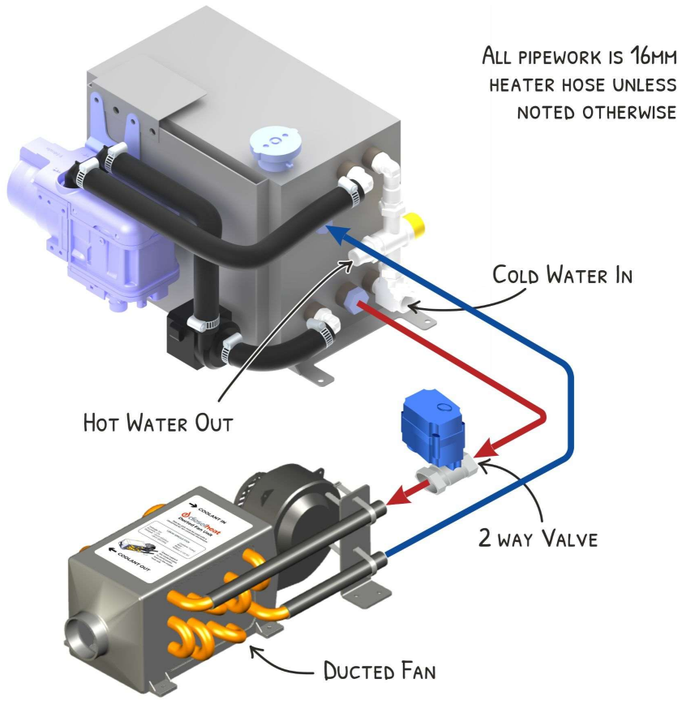
- Within 1.5 m of the hot water system, and
- Less than 0.5 m above the top of the coolant tank

Follow these steps:

1. Do not install the bypass hole blocking ring.
2. Fit hose tails to ports 1 and 5.
3. Connect the fan head hoses to these hose tails.
4. Connect the 2 way coolant valve in either of the coolant pipes at a convenient location.

With this setup, coolant will flow to the fan head. If the fan head circuit is turned off, coolant will automatically bypass via the internal bypass hole.

DH15oe Plumbing Schematic - 2 way Coolant Valve



方案 1：仅供应热水

仅供应热水时，应使用随附堵头封闭接口 1 和 5。不得安装旁通孔封堵环。

方案 2：单个暖风机，靠近热水系统

适用于仅安装一个暖风机，且同时满足以下条件：

- 距热水系统不超过 1.5 m；
- 高出冷却液水箱顶部不足 0.5 m。

安装步骤

1. 不要安装旁通孔封堵环。
2. 在接口 1 和 5 上安装软管接头。
3. 将暖风机软管连接到这些接头上。
4. 在任意一根冷却液管路的适当位置安装二通冷却液阀。

采用此配置，冷却液流向暖风机。暖风机回路关闭时，冷却液会自动通过内部旁通孔旁通回流。

图示：DH15oe 管路示意图-二通冷却液阀

ALL PIPEWORK IS 16MM HEATER HOSE UNLESS NOTED OTHERWISE

除非另有说明，所有管路均采用 16 mm 暖风用软管。

Cold Water In：冷水入口

Hot Water Out：热水出口

2 Way Valve：二通阀

Ducted Fan：风管式暖风机

Case 3: Installations Requiring 3-Way Bypass Valves



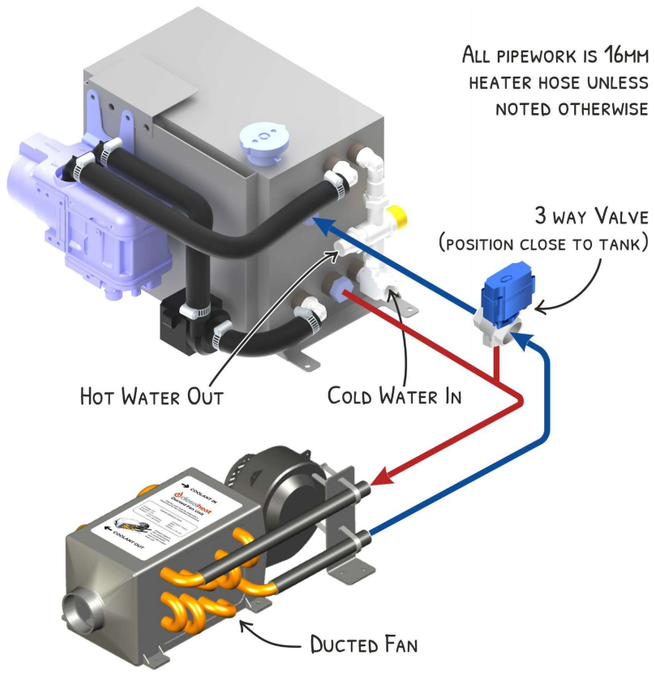
- Systems with multiple fan heads
- Fan heads located more than 0.5 m above the coolant tank level
- Fan heads positioned more than 1.5 m away from the coolant tank
- This system will support a total pipe length of approx 20m

Follow these steps:

1. Install the bypass hole blocking ring.
2. Fit hose tails to ports 1 and 5.
3. Install the 3 way valve as close to the hot water system as possible. Take note of the valve orientation, the arrow must point back to the hot water system.
4. Connect the fan head hoses to the hose tails.

Reasoning:
Installing the blocking ring prevents coolant from passing back into the tank via the bypass hole. This increases available pump pressure, ensuring proper circulation of coolant through longer or higher fan head circuits.

DH15oe Plumbing Schematic - 3 way Coolant Valve



Note: If you are unsure how to configure your tank or have doubts, please contact Dieselheat.

方案 3：需要三通旁通阀的安装

- 配备多个暖风机的系统。
- 暖风机高出冷却液水箱液位超过 0.5 m。
- 暖风机距冷却液水箱超过 1.5 m。
- 此系统支持约 20 m 的管路总长度。

安装步骤

1. 安装旁通孔封堵环。
2. 在接口 1 和 5 上安装软管接头。
3. 尽量靠近热水系统安装三通阀。注意阀门方向，箭头必须指回热水系统。
4. 将暖风机软管连接到软管接头上。

原理

封堵环防止冷却液经旁通孔返回水箱，从而提高可用泵压，确保冷却液在较长或较高的暖风机回路中正常循环。

图示：DH15oe 管路示意图-三通冷却液阀

ALL PIPEWORK IS 16MM HEATER HOSE UNLESS NOTED OTHERWISE

除非另有说明，所有管路均采用 16 mm 暖风用软管。

Cold Water In：冷水入口

Hot Water Out：热水出口

3 Way Valve (position close to tank)：三通阀（靠近水箱安装）

Ducted Fan：风管式暖风机

注意

如果不确定如何配置水箱，或有任何疑问，请联系 Dieselheat。

System Cooling and Ventilation

The Thermo Top Evo Furnace requires a supply of cool air for its combustion intake. If the combustion intake air temperature rises above 45 °C for an extended period the furnace will trigger a fault code and will not re-start. The vast majority of systems do not require any specific ventilation or extra cooling. In most cases we suggest installing and testing the system as delivered - then add extra ventilation if needed.

Open Installations: For systems installed in open spaces (such as under a bed), no specific ventilation is required.

Enclosed Installations: For systems installed in small or enclosed spaces (such as under seats or inside cupboards), the area must be adequately ventilated, or the furnace combustion air intake must be positioned so that it receives cool air from outside the enclosure.

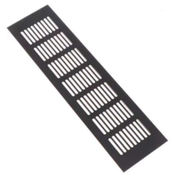
Note: The furnace, tank, and enclosure do not need to be kept cool—only the combustion intake air requires a supply of cool air.

Cooling Strategies

- **Use the air heater to cool the furnace space**
  If the air heater is installed in the same space as the hot water system, when using the system for extended periods to run the air heating it will cool the space as it circulates air. Always ensure the return air vent is installed as per instructions to facilitate this process.

- **Relocate the air intake:**
  Move the combustion air intake from its pre-installed position on the system so that the intake end draws cool air, such as from beside an inlet vent. This ensures that, even if the enclosure is warm, the furnace receives cool combustion air.

- **Add ventilation louvres:**
  Install open louvres at both the top and bottom of the enclosure to allow for natural convective cooling. *Avoid pressed metal louvres*, as they restrict airflow and reduce cooling efficiency.



Dieselheat Combustion Intake Air Extension Kit
The extension kit allows the furnace combustion air intake to be extended by 40cm to a total length of 1m and for the intake to draw air from a cooler adjacent space.
This kit is recommended for systems which after testing indicate high intake air temperature.



系统冷却与通风

Thermo Top Evo 加热炉的燃烧进气需要较凉的空气。如果燃烧进气温度长时间高于 45°C，加热炉会触发故障码，并且无法重新启动。绝大多数系统无需专门通风或额外冷却。通常建议先按出厂配置安装并测试，再按需要增加通风。

开放式安装：安装在开放空间（如床下）的系统无需专门通风。

封闭式安装：安装在狭小或封闭空间（如座椅下或柜内）时，必须充分通风，或将燃烧进气口置于可从箱体外吸入较凉空气的位置。

注意：加热炉、水箱及箱体不需要保持低温；只有燃烧进气需要较凉的空气。

冷却措施

• 使用暖风机冷却加热炉所在空间：若暖风机与热水系统安装在同一空间，长时间供暖时，空气循环会使该空间降温。务必按说明安装回风口，以实现这种循环。

• 改变进气口位置：将燃烧进气口从系统上的预装位置移开，使进气端从通风口旁等较凉位置吸气。这样，即使箱体较热，加热炉仍可获得较凉的燃烧空气。

• 增加通风百叶：在箱体顶部及底部安装通透的百叶，以实现自然对流冷却。避免使用冲压金属百叶，因为它们会限制气流，降低冷却效果。

Dieselheat 燃烧进气延长套件

此套件可将燃烧进气管延长 40 cm，总长达到 1 m，并使进气口从邻近的较凉空间吸气。

如果系统测试显示进气温度偏高，建议使用此套件。

Air Heating

Dieselheat works with our own custom designed air heating heads.

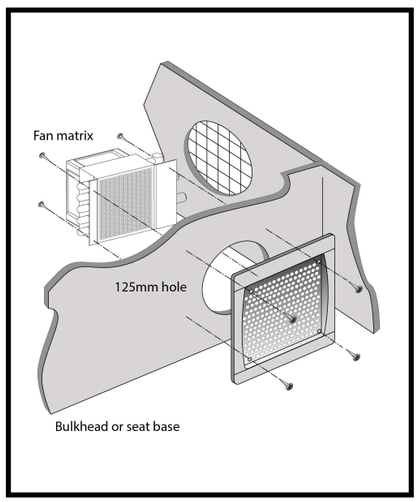
Dieselheat Ducted Fan





Fan Head Installation

- Fan heads should be mounted as close to the area that requires heating as possible.
- **Dieselheat fan heads on a 2 way valve system must be mounted with the main copper pipes horizontal.** On 3 way valve systems which have higher pump pressure - orientation is not important.
- **Coolant flow direction is only important in Dieselheat fan heads, coolant out from the tank goes to coolant in on the fan head.**
- Take appropriate precautions to stop external pipe damage when hoses pass through walls or bulkheads.



Return Air Vent Requirement

Always make sure there is adequate return air ventilation to ensure the fan head works effectively.

Be aware of punched metal louvres - they often constrict airflow and are not suitable as return air inlets.



空气供暖

Dieselheat 系统可配合我们自行设计的暖风机使用。

Dieselheat Ducted Fan：Dieselheat 风管式暖风机。

暖风机安装

• 暖风机应尽量靠近需要供暖的区域。

• 使用二通阀的系统，Dieselheat 暖风机必须以主铜管水平的方向安装。使用三通阀的系统泵压较高，安装方向不作要求。

• 只有 Dieselheat 暖风机需要注意冷却液流向：水箱的冷却液出口必须连接暖风机的冷却液入口。

• 软管穿过墙壁或舱壁时，应采取适当措施防止管道外部损伤。

必须保证充足的回风通风，才能使暖风机有效工作。

注意冲孔 / 冲压金属百叶：它们往往会限制气流，不适合作为回风入口。

图示文字对照

Fan matrix：暖风机换热芯体。

125mm hole：125 mm 开孔。

Bulkhead or seat base：舱壁或座椅底座。

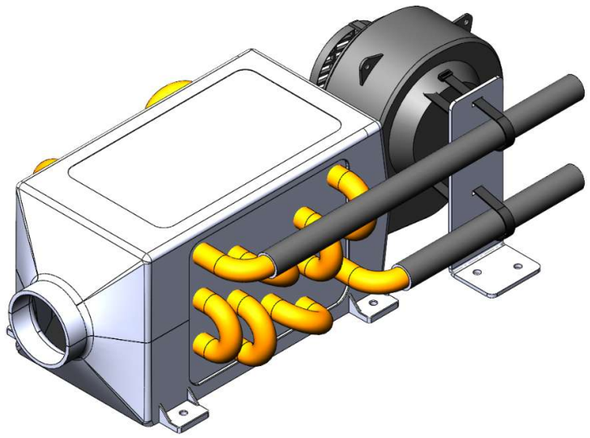
回风口要求

（具体要求接下页。）

A 90 mm return air vent is supplied with the Dieselheat ducted fan heater. This vent, or an equivalent, must be installed on the cabinet that houses the fan heater.

For each fan motor on the air heater, you must ensure there is a clear opening to the installation space with an area at least equal to a 90mm diameter vent.

Piping Support
For RVs to be used on rough roads, ensure the coolant pipes going to the ducted fan are supported. Do not position coolant valves so that their weight is bearing on the copper ducted fan pipes.



Plumbing the Coolant Hoses

The hot water service to fan heating head plumbing should be done with 16mm ID rubber hoses and secured with hose clamps. Fan head installation kits from Dieselheat contain 2m of the necessary hose and all other hose tails and clamps.

Coolant

The system must be filled with good quality engine coolant to prevent corrosion of the furnace's internal components.

Generally, commonly available coolants that include corrosion inhibitors are acceptable and should be used in accordance with the manufacturer's specifications.

Antifreeze is not required unless the system will be operated or stored in freezing conditions.

It is acceptable to initially leak test the system using water during the installation and testing phase, as long as the water is immediately removed and replaced with coolant after testing.

Note: Never leave a system that was filled with water for testing sitting empty, as residual moisture and air will immediately trigger internal corrosion.

Always dilute coolant concentrates as per the manufactures instructions. Incorrectly dilute coolant can impact system performance.

回风、冷却液软管与冷却液

回风口要求（续）

Dieselheat 风管式暖风机随附一个 90 mm 回风口。必须在安装暖风机的柜体上安装此回风口或同等产品。

暖风机每配备一个风扇电机，通往安装空间的有效通风开口面积必须至少相当于一个直径 90 mm 的通风口面积。

管路支撑

用于颠簸道路的房车，必须支撑通往风管式暖风机的冷却液管路。不得让冷却液阀门的重量由暖风机铜管承受。

冷却液软管连接

热水系统与暖风机之间应使用内径 16 mm 的橡胶软管，并用软管卡箍固定。Dieselheat 暖风机安装套件包含 2 m 所需软管，以及其他所需软管接头和卡箍。

冷却液

系统必须加注优质发动机冷却液，以防止加热炉内部部件腐蚀。

通常可使用市售含缓蚀剂的冷却液，并按制造商的规定使用。

除非系统将在冰冻条件下运行或存放，否则无需防冻功能。

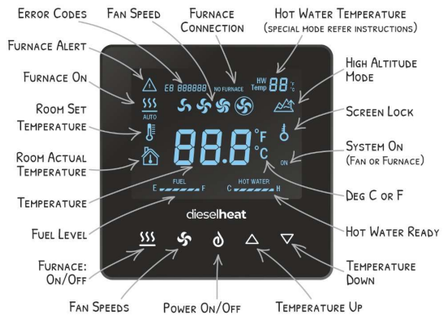
安装及测试阶段可以先用水检查系统是否泄漏，但测试后必须立即排水，并改为加注冷却液。

注意：切勿将用水测试后的系统排空后长期放置；残留水分与空气会立即引发内部腐蚀。

浓缩冷却液必须按制造商说明稀释。稀释比例不正确可能影响系统性能。

Water and Air Temperature Control

Controlling The Air Temperature



Thermostat Control (Optional)

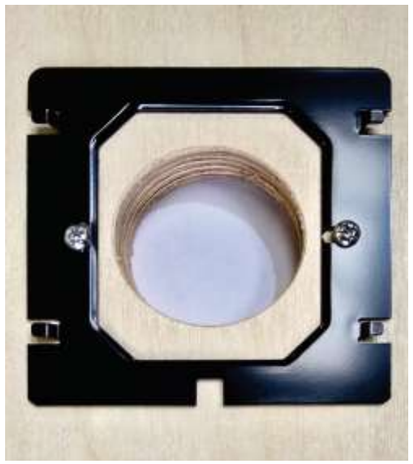
The Dieselheat hydronic thermostat (V4) is designed specifically for hydronic system control. The thermostat provides:

- 3 manual and also automatic fan speed control for Dieselheat ducted fans
- an ignition signal for the Webasto diesel furnace
- a signal to open a coolant valve when a fan head fan is on.
- fuel level (optional).

Note: The V4 Thermostat does not show fault codes on the screen when used with a Webasto furnace. In this deployment fault codes are shown via the LED fault light on the on/off switch.

Dieselheat Hydronic Thermostat V4 Installation

1. Mount the thermostat in a location (around chest height) where the air temperature can be measured as accurately as possible without being affected by direct solar radiation or other source of heating or cooling.
2. To install the thermostat, drill a **40mm** hole in the desired location.
3. Screw the thermostat mounting plate to the wall with the 2 supplied screws.
4. Mount the thermostat. **Always provide support for the cables.**





水温与室温控制

室温控制：温控器控制（选配）

Dieselheat 水暖温控器（V4）专为水暖系统控制设计，可提供：

- Dieselheat 风管式暖风机的三档手动风速和自动风速控制。
- Webasto 柴油加热炉的点火 / 启动信号。
- 暖风机风扇开启时，输出冷却液阀开启信号。
- 燃油液位显示（选配）。

注意：与 Webasto 加热炉配合使用时，V4 温控器屏幕不显示故障码。此配置通过启停开关上的 LED 故障指示灯显示故障码。

Dieselheat Hydronic V4 温控器安装

1. 将温控器安装在大约胸部高度、能尽可能准确测量气温的位置，避免阳光直射以及其他热源或冷源影响。
2. 在选定安装位置钻一个直径 40 mm 的孔。
3. 使用随附的两颗螺钉，将温控器安装板固定在墙面上。
4. 安装温控器。必须为电缆提供支撑。

温控器图示文字对照

Error Codes：故障码；Fan Speed：风速；Furnace Connection：加热炉连接状态。

Hot Water Temperature (special mode refer instructions)：热水温度（特殊模式，参见说明）。

Furnace Alert：加热炉报警；Furnace On：加热炉已开启。

Room Set Temperature：室温设定值；Room Actual Temperature：实际室温。

Temperature：温度；Fuel Level：燃油液位。

Furnace On/Off：加热炉开 / 关；Fan Speeds：风速档位。

Power On/Off：电源开 / 关；Temperature Up：升温；Temperature Down：降温。

High Altitude Mode：高海拔模式；Screen Lock：屏幕锁定。

System On (fan or furnace)：系统已开启（风机或加热炉）。

Deg C or F：摄氏或华氏；Hot Water Ready：热水就绪。

译注：图中为通用屏幕标注；本 Webasto 配置的实际支持功能以上文及原手册第 4 页为准。

Configuring the V4 Thermostat to use with Webasto

Note: It is necessary to turn off CAN Communication (Parameter 3) when using the V4 Thermostat with a Webasto furnace in the DH15oe Duo.

Some thermostat settings can be customized. How to Change Parameters:

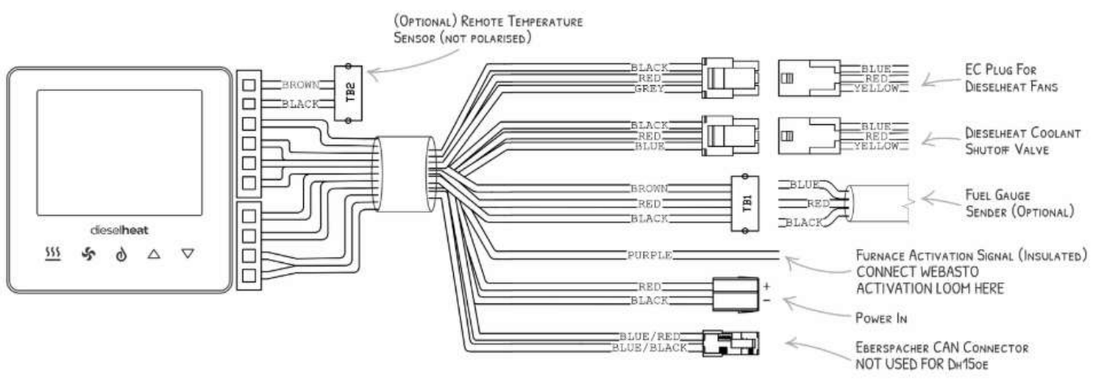
1. Ensure the thermostat is turned off.
2. Press and hold heat (on/off) and up arrow for 3 seconds to enter Parameter Mode.
3. Use heat (on/off) to scroll through available parameters.
4. Adjust settings using up and down
5. Changes are saved instantly.
6. Turn the thermostat off to exit Parameter Mode.

CODE	PARAMETERS	RANGE	DEFAULT
1	Temp calibration/offset	-9 ~+9	0
2	Temperature Display	0 Deg C, 1 Deg F	Deg C
3	CAN Communication	0 Disable, 1 Enable	Enable
4	Fan auto mode P-band range	2, 4, 6, 8, 10	10
5	Fan auto mode I-time range	1 - 60 mins	3 mins
6	Min EC Output for Auto Fan	0 - 10 Vdc	0 Vdc
7	Max EC Output of Auto Fan	0 - 10 Vdc	10 Vdc
8	Low Fan Speed for EC fans on manual mode	0 - 10 Vdc	2 Vdc
9	Medium Fan Speed for EC fans on manual	0 - 10 Vdc	5 Vdc
10	High Fan Speed for EC fans on manual mode	0 - 10 Vdc	10 Vdc
11	Not used		
12	Show Hot Water Temperature Graph	0, 1 (show)	1 (show)
13	Show Fuel Level Graph	0, 1 (show)	0 (do not show)
14	Display Graphs When Screen Sleeps	0, 1 (show)	1 (show)
15	HW Temperature Display*	0	Off
16	Button Backlight	0 Off, 1 On	On

Note: Parameters 4 and 5 adjust the sensitivity of the fan in Auto mode. P sets the speed at which the fan adjusts as the set temp is approached and T sets the time interval at which the controller adjusts the fan.

* If Parameter 15 is set to Off the main temperature display is based on the internal sensor or the external sensor if connected. If set to On the main display is always based on the internal sensor and the temperature sensed by the external probe is displayed in the top right of the controller. This allows the actual hot water temperature to be displayed in solar hot water systems.

Wiring Connections for V4 Thermostat with Webasto in DH15oe Duo



V4 温控器的 Webasto 配置与接线

注意：V4 温控器用于 DH15oe Duo 的 Webasto 加热炉时，必须关闭 CAN 通信（参数 3）。

更改参数

1. 确认温控器已关闭。2. 同时按住加热（开 / 关）及向上箭头 3 秒，进入参数模式。3. 按加热（开 / 关）键依次选择参数。4. 用上下箭头调整。5. 更改即时保存。6. 关闭温控器以退出参数模式。

参数表：编号 / 参数 / 范围 / 默认值

1 / 温度校准或偏移 / -9 至 +9 / 0
2 / 温度显示 / 0 摄氏、1 华氏 / 摄氏
3 / CAN 通信 / 0 禁用、1 启用 / 启用
4 / 风机自动模式 P 比例带 / 2、4、6、8、10 / 10
5 / 风机自动模式 I 时间 / 1-60 分钟 / 3 分钟
6 / 自动风机最小 EC 输出 / 0-10 V DC / 0 V DC
7 / 自动风机最大 EC 输出 / 0-10 V DC / 10 V DC
8 / EC 风机手动低速 / 0-10 V DC / 2 V DC
9 / EC 风机手动中速 / 0-10 V DC / 5 V DC
10 / EC 风机手动高速 / 0-10 V DC / 10 V DC
11 / 不使用 / 原表未填 / 原表未填
12 / 显示热水温度图 / 0、1（显示）/ 1（显示）
13 / 显示燃油液位图 / 0、1（显示）/ 0（不显示）
14 / 屏幕休眠时显示图形 / 0、1（显示）/ 1（显示）
15 / 热水温度显示* / 0 / 关闭
16 / 按键背光 / 0 关闭、1 开启 / 开启

参数 4、5 调节自动模式的风机灵敏度：P 决定接近设定温度时风机调整的快慢；原文所称 T 决定控制器调整风机的时间间隔。

* 参数 15 关闭时，主温度显示采用内置传感器，或已连接的外置传感器。开启时，主显示始终采用内置传感器，外置探头温度显示在右上角，可用于太阳能热水系统显示实际热水温度。

DH15oe Duo：V4 温控器与 Webasto 接线图

(Optional) Remote Temperature Sensor (not polarised)：远程温度传感器（选配，无极性）。

EC Plug for Dieselheat Fans：Dieselheat 风机 EC 插头。

Dieselheat Coolant Shutoff Valve：Dieselheat 冷却液截止阀。

Fuel Gauge Sender (Optional)：燃油液位传感器（选配）。

Furnace Activation Signal (Insulated) / Connect Webasto Activation Loom Here：加热炉启动信号（已绝缘）；在此连接 Webasto 启动线束。

Power In：电源输入；Eberspächer CAN Connector / Not Used for DH15oe：Eberspächer CAN 接头，DH15oe 不使用。

线色：Brown 棕、Black 黑、Red 红、Grey 灰、Blue 蓝、Yellow 黄、Purple 紫、Blue/Red 蓝 / 红、Blue/Black 蓝 / 黑；+ 正极、- 负极；TB1、TB2 为端子标识。

译注：表中参数 3 默认启用，Webasto 使用时须按本页要求改为禁用；参数 15 范围仅列“0”，说明却提及开启，均按原文保留。

Optional Remote Temperature Sensor for Hydronic Thermostat

If the thermostat is not mounted in a position where it's internal room temperature sensor can easily sense the room temperature then install the optional remote temperature sensor (sold separately).



Optional Fuel Level Sensor for Hydronic Thermostat

The optional Dieselheat fuel level sensor can be installed in the black wafer fuel tank in place of the normal mechanical gauge. The sensor can be connected to the thermostat which will display the fuel level automatically after the fuel tank is filled over half full for the first time.



Tempering Valve - Controlling Water Temperature

When the system has been turned on and has warmed up, the water coming straight from the DH15oe hot water service will be approximately 80 degrees Celsius.

The tempering valve not only controls the outlet temperature but will increase the usable hot water capacity. The volume of coolant at 80 degrees is directly related to how much hot water is available at 45-50 degrees.



The supplied tempering valves come pre-set at 50, but can be set at between 40 and 55 degrees by removing the yellow cap and rotating the brass bolt beneath it.

The system will always be shipped with the tempering valve installed.

Never operate the system without the tempering valve or with a defective tempering valve as the outlet water temperature can be as hot as 80 degrees.

Watermark Approval

The DH15oe is certified as Watermark approved and lead free.

Lead Free

WMTS-528:2021 **WM 23442**

This product complies with the requirements of Lead-Free standards as defined in the National Construction Code Volume 3 and is suitable for use as part of Lead-Free installation.

温控器选配传感器及水温控制

水暖温控器选配远程温度传感器

如果温控器的安装位置使其内置室温传感器不易感知室内温度，应安装选配的远程温度传感器（单独销售）。

水暖温控器选配燃油液位传感器

选配的 Dieselheat 燃油液位传感器可安装在黑色扁平油箱中，替代常规机械油量表。将传感器连接至温控器后，首次把油箱加至半箱以上，温控器即会自动显示燃油液位。

恒温混水阀：控制水温

系统开启并升温后，直接从 DH15oe 热水系统流出的水温约为 80°C。

恒温混水阀不仅控制出水温度，还可增加可用热水量。80°C 冷却液的体积，直接关系到可供应的 45-50 °C 热水量。

随附混水阀出厂预设为 50°C。取下黄色盖，旋转其下方的黄铜调节螺栓，可在 40-55°C 范围内调节。

系统出厂时始终已安装恒温混水阀。

切勿在未安装混水阀或混水阀故障的情况下运行系统，因为出水温度可能高达 80°C。

WaterMark 认证

DH15oe 已通过 WaterMark 认证，并符合无铅要求。

认证标识文字

Lead Free：无铅

WMTS-528:2021 | WM 23442

本产品符合《国家建筑规范》第 3 卷所定义的无铅标准要求，适用于无铅安装系统。

Fuel System

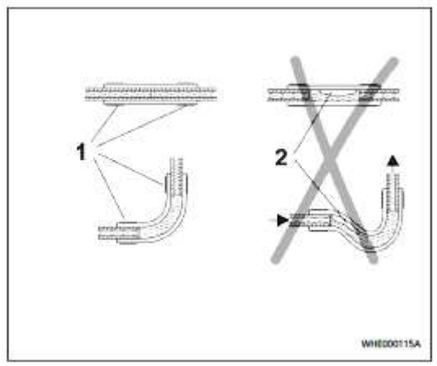
Allowable Fuel Line Lengths

Ensure the installation complies with the following allowable lengths and heights.

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

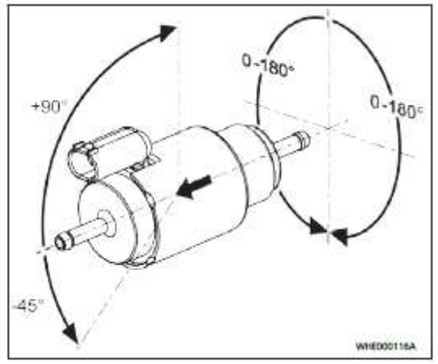
Fuel System Installation

- To install the fuel line into the rubber joiners, use a small amount of vaseline or silicon grease prior to inserting into the joiner.
- When cutting the fuel line, use a sharp knife or snips. Do not allow the end of the line to compress or burr.
- If possible, install the fuel line running uphill from the pump to the furnace.
- Protect the fuel line with split corrugated conduit and secure it with cable ties or clamps to avoid mechanical damage or chafing.
- It is especially important to secure the fuel line in the vicinity of the fuel pump or impulses from the pump can cause the fuel lines to rattle.
- When making fuel line connections, always push the fuel line all the way into the rubber joiner to ensure a butt joint and prevent bubbles forming.



- Ensure all connections have screw or single use ear clamps installed.
- Ensure the fuel line cannot contact anything hot like the furnace exhaust or a boat exhaust.

Ensure the pump is installed with the correct orientation.



It is advisable to install the pump as close as possible to the fuel source so that it pushes the fuel instead of sucking it.

The Webasto fuel pump is very quiet so noise does not need to be a major consideration when selecting a location.

Install the inline fuel filter upstream of the fuel pump.

Fuel Source

The DH15oe can be connected to an auxiliary fuel tank, to a day tank or to a connection point on the main fuel system.

When connecting to main fuel systems in motorhomes, it is important to ensure that the fuel take off point is not pressurised (downstream of any feed pumps) and that there are no opportunities for air to enter the fuel lines.

燃油系统

允许的燃油管长度

安装必须符合以下允许长度及高度：

• 吸油管长度：最长 3.0 m。

• 吸油高度（油箱与燃油泵之间的高度差）：最大 1.0 m。

• 压力侧燃油管长度：最长 9.0 m。

燃油系统安装

• 将燃油管插入橡胶连接套之前，先涂少量凡士林或硅脂。

• 用锋利的小刀或剪钳切割燃油管。不得使管端压扁或产生毛刺。

• 如条件允许，燃油管应从燃油泵向加热炉方向逐渐上升。

• 用开口波纹护管保护燃油管，并用扎带或卡箍固定，防止机械损伤或磨损。

• 尤其要固定燃油泵附近的燃油管，否则泵的脉冲可能使油管振动并发出响声。

• 连接燃油管时，必须将管子完全推入橡胶连接套，使两端对接，防止形成气泡。

• 所有连接处必须安装螺丝卡箍或一次性耳式卡箍。

• 燃油管不得接触加热炉排气管、船舶排气管等任何高温部件。

燃油泵方向与位置

必须按左侧图示以正确方向安装燃油泵。角度图标注 +90°、-45° 及 0-180°；各角度所对应的方向和箭头以原图为准。

建议将燃油泵尽量靠近燃油源安装，使其主要推送燃油，而非吸取燃油。

Webasto 燃油泵非常安静，选择位置时无需将噪声作为主要因素。

管路燃油滤清器必须安装在燃油泵上游。

燃油来源

DH15oe 可以连接副油箱、日用油箱，或主燃油系统的取油点。

连接自行式房车的主燃油系统时，必须确保取油点不受压，且燃油管路不会进气。

译注：原文在“不受压”后括注“downstream of any feed pumps”（位于任何供油泵下游）。此处表述需核实，请向 Dieselheat 确认取油位置。

燃油管连接图

1：正确，两段管端在连接套内对接。2：错误，管端间留有空隙。

Electrical Connection

Wiring Guidelines

Cable protection: Route all wires through split corrugated conduit and secure them with cable ties or clamps to prevent damage or chafing.

Loom handling: Except for the fuel pump cable, do not cut or shorten the wiring loom. Any spare cable should be neatly coiled and tied out of the way.

Heat protection: Take extra care with any wiring near the exhaust system or where cables connect to the furnace. Ensure they are positioned well clear of hot components to avoid heat damage.

Power and Control

Switching options: The furnace can be switched on and off using the Webasto toggle switch or the Dieselheat thermostat.

Always retain the on/off switch if using the Dieselheat thermostat so the inbuilt LED can display error codes.

Power supply: The furnace operates on 12 V DC.

- Starting current: approximately 8 A
- Running current: approximately 2–4 A once startup is complete
- Connect the furnace directly to the house batteries, using 6 mm² cable if the loom is extended.

Power Switching and Voltage Considerations

If you must connect through an isolation switch or switchboard (not recommended), ensure the board has a robust power feed from the batteries.

- Insufficient supply can cause voltage drop, making the unit difficult to start.
- Avoid small caravan-style fuse boxes for this reason—use only commercial-grade switchboards with DC bus bars.

Except in an emergency, never switch the diesel furnace off at the main power supply. The furnace must complete its cool-down sequence before shutting down. This process is automatically triggered when it's turned off via its on/off switch or controller.

For this reason, main power switches are not recommended for routine operation.

电气连接

布线指南

电缆保护：所有电线均应穿入开口波纹护管，并用扎带或卡箍固定，以防损伤或磨损。

线束处理：除燃油泵电缆外，不得切断或缩短线束。多余电缆应整齐盘绕并固定在不妨碍使用的位置。

隔热保护：特别注意排气系统附近及加热炉连接处的布线。电缆必须远离高温部件，以防受热损坏。

电源与控制

启停方式：可使用Webasto 拨动开关或 Dieselheat 温控器启停加热炉。

使用 Dieselheat 温控器时，必须保留启停开关，以便通过其内置 LED 显示故障码。

电源：加热炉使用 12 V 直流电。

• 启动电流：约 8 A。

• 启动完成后的运行电流：约 2-4 A。

• 应将加热炉直接连接至生活电池；若延长线束，应使用 6 mm² 电缆。

电源开关与电压注意事项

如必须经过隔离开关或配电板连接（不推荐），应保证配电板由电池提供足够可靠的电源。

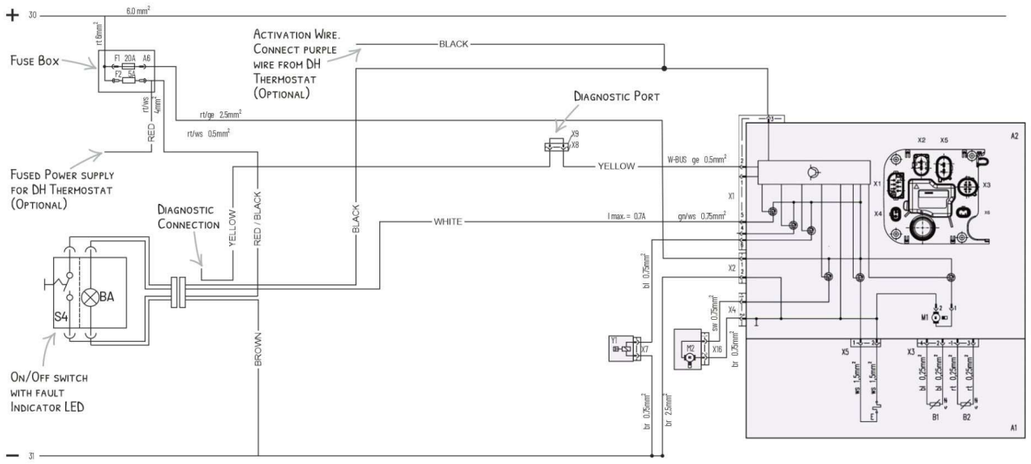
• 供电不足会导致压降，使设备难以启动。

• 因此，应避免使用小型房车式保险丝盒，只使用带直流汇流排的商用级配电板。

重要提示

除紧急情况外，切勿通过切断主电源关闭柴油加热炉。加热炉停机前必须完成冷却程序。通过其启停开关或控制器关闭时，会自动执行此程序。

因此，不建议在日常操作中使用主电源开关启停设备。



Combustion Inlet and Exhaust

Combustion Air

The DH15oe ships with the furnace combustion air inlet pipe and combustion silencer pre-installed.

Take note of the system ventilation and cooling requirements when setting up the combustion air.

For vehicles that will be operating in dusty conditions, it is not recommended to install the combustion air inlet outside the vehicle. If it is necessary to do this, use the following strategy:

- Keep the air inlet up high and behind some part of the vehicle like a crossmember or water tank.
- Make sure the exhaust points backwards and down.
- Consider covering the exhaust with an exhaust end cap when not in use in dusty conditions. This can prevent air circulating through the unit whilst traveling.
- After driving in dusty conditions, tap out or clean the inlet pipe prior to starting the unit.



Note: If the DH15oe is installed in a sealed box or compartment, always ensure the box is opened before use. Operating the furnace in a sealed box will result in inadequate combustion air, causing the furnace to soot up and need service.

接线图及燃烧进气与排气

接线图文字对照

Fuse Box：保险丝盒。

Activation Wire. Connect Purple Wire from DH Thermostat (Optional)：启动信号线，连接 DH 温控器的紫色导线（选配）。

Fused Power Supply for DH Thermostat (Optional)：经保险丝保护的 DH 温控器电源（选配）。

Diagnostic Port：诊断接口；Diagnostic Connection：诊断连接。

On/Off Switch with Fault Indicator LED：带 LED 故障指示灯的启停开关。

线色：BLACK 黑色、RED 红色、YELLOW 黄色、WHITE 白色、BROWN 棕色、RED/BLACK 红 / 黑。

原图缩写：rt 红、br 棕、ge 黄、ws 白、sw 黑、bl 蓝、gn 绿、gr 灰。双色缩写按组合读取，例如 gr/ws 为灰 / 白。

“+”为电池正极，“-”为负极；mm² 为电线截面积。保险丝 F1 标为 20 A，F2 标为 5 A；其他针脚、部件编号、线径及连接关系均保留在原图中。

燃烧空气

DH15oe 出厂时已预装燃烧进气管和进气消音器。

设置燃烧进气时，务必注意系统的通风和冷却要求。

对于在多尘环境行驶的车辆，不建议将燃烧进气口安装在车外。如果必须外置，应采取以下措施：

• 将进气口设在较高处，并置于横梁、水箱等车辆部件后方。

• 确保排气口朝后并向下。

• 在多尘环境中不用设备时，可考虑用排气端盖封住排气口，避免行驶过程中空气穿过设备。

• 在多尘环境行驶后，启动设备前应轻敲清除或清洁进气管内的灰尘。

注意

如果 DH15oe 安装在密闭箱体或舱室内，使用前必须打开箱体。在密闭箱体内运行会导致燃烧空气不足，使加热炉积碳并需要维护。

RV Exhaust



The exhaust system on an RV consists of 2 lengths of exhaust and a muffler. The exhaust should be installed in a manner that ensures it cannot dislodge or come into contact with any electrical wiring, water pipes, etc., as it is hot enough to melt plastics.

The exhaust should have a length of pipe before the muffler and generally at least 30cm of pipe after the muffler, as this helps to manage noise. If possible, install all of the exhaust pipe provided to reduce noise.

The exhaust pipe should be horizontal or have a slight downward slope to prevent condensation being trapped in the pipe.

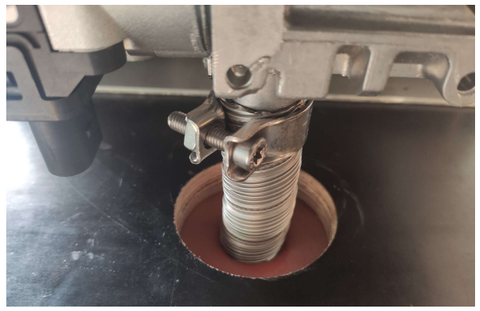
If the exhaust pipe has a valley or low spot, drill a 2mm hole at the lowest point to allow condensation to drain.

Silicon Plate Installation

If the exhaust cowl cannot be installed due to space constraints or the complex nature of the exhaust location, an alternative option to leave the exhaust uncovered and use a silicon plate is acceptable.



View of exhaust floor plate from below



View of exhaust floor plate from above

[NEED TO UPDATE PHOTOS TO SHOW LAGGING AND WEBASTO FURANCE]

房车排气系统

房车排气系统由两段排气管及一个消音器组成。排气管必须牢固安装，不得脱落，也不得接触电线、水管等，因为其温度足以熔化塑料。

消音器前应有一段排气管，消音器后通常至少保留 30 cm 排气管，以帮助控制噪声。如条件允许，应使用随附的全部排气管，以降低噪声。

排气管应水平或略向下倾斜，避免冷凝水积聚。

如果排气管存在凹陷或低点，应在最低处钻一个 2 mm 孔，以排出冷凝水。

硅胶密封板安装

如因空间受限或排气安装位置复杂而无法安装排气防护罩，可以采用不包覆排气管、改用硅胶密封板的替代方案。

照片说明

View of exhaust floor plate from below：从下方观察排气管地板密封板。

View of exhaust floor plate from above：从上方观察排气管地板密封板。

原文编辑提示（保留）

[需要更新照片，以显示隔热包覆层及 Webasto 加热炉。]

译注：上述方括号内容为原手册中已有的照片更新提示，本译本未更换原图。

Commissioning

Coolant System Filling and Pump Priming

It can be time-consuming and messy to fix bad joints or leaks once the system has been filled with coolant. To avoid this, ensure **all hose connections are tight and secure**, and that **hoses are free of kinks**, **before filling the system.**

The coolant system operates at approximately **5–10 psi**, so careful preparation is essential.

Initial Power-Up

Once the system is fully installed:

1. Insert the fuses into the power line.
2. Power on the furnace.

Coolant Pump Priming

1. Remove the radiator cap on the tank.
2. Fill the system with pre-mixed coolant to approximately 20 mm below the top of the tank.

   Note: If the system is slightly overfilled, some overflow from the spigot under the cap may occur during first startup. This is normal and will stop once the correct coolant level is reached.
3. With the cap still removed, switch on the furnace.
4. You should hear a quiet whining sound from the coolant pump—this is normal.
5. During this first start-up, air will be purged from the internal pipework, fan heating head, etc. You may see air bubbles rising in the tank as this happens.
6. Check the coolant level after priming. If it has dropped significantly, top it up as needed.
7. Observe the coolant through the filler opening:
   - You should see swirling or turbulence, indicating that coolant is circulating.
   - The pump should be whining softly, not loudly—a sign that it is fully primed and operating correctly.

Once the system is primed and coolant is circulating properly, it is safe to proceed with furnace operation.

调试

冷却液系统加注与泵的灌注排气

系统加注冷却液后，再修复接头或泄漏会耗时且容易弄脏。因此，加液前必须确保所有软管接头紧固可靠，且软管没有折瘪。

冷却液系统工作压力约为 5-10 psi，应认真做好准备。

首次通电

系统全部安装完成后：

1. 将保险丝插入电源线路。
2. 给加热炉通电。

冷却液泵灌注排气

1. 取下水箱上的压力加注盖。
2. 加入预混冷却液，使液位约低于水箱顶部 20 mm。

注意：如果略微加注过量，首次启动时可能有少量冷却液从加注盖下方的溢流口流出。这是正常现象，达到正确液位后会停止。

3. 保持加注盖打开，开启加热炉。
4. 应能听到冷却液泵轻微的嗡鸣声，这是正常现象。
5. 首次启动期间，内部管路、暖风机等处的空气会被排出。此时可能看到水箱中有气泡上升。
6. 灌注排气后检查液位。如明显下降，应按需要补液。
7. 通过加注口观察冷却液：应看到旋涡或扰动，表明液体正在循环。泵的嗡鸣应轻柔而不响亮，这表明已充分灌注并正常工作。

泵完成灌注且冷却液正常循环后，才能安全地继续运行加热炉。

Troubleshooting: Coolant Not Circulating

If coolant is not circulating through the system during the priming process, follow the steps below:

1. Check the plumbing
   - Ensure all hoses are correctly connected.
   - Make sure all fan head valves are fully open.

2. Turn on the unit
   - The coolant pump will start automatically.
   - It may surge as it attempts to prime.

3. Wait for the fuel pump to start ticking
   - As soon as you hear the ticking, turn the unit off before the furnace begins its startup cycle.

4. Wait for a full shutdown
   - Allow the unit to shut down completely before proceeding.

5. Repeat the process
   - You may need to repeat the above steps four or five times to fully purge air from the system.
   - Watch the top of the tank for small air bubbles rising through the coolant, indicating air is being expelled.

Signs of Successful Priming

- Small air bubbles appear in the coolant tank.
- The pump tone becomes steady and quieter.
- You can observe swirling or turbulence at the surface of the coolant.

Once these signs are present, the pump is primed and coolant is circulating correctly. You may now proceed with normal operation of the furnace.

Initial Startup

Follow the adjacent QR Code for a video on how to use the Dieselheat Thermostat.

Once the coolant pump is primed, leave the switch on and the furnace will begin its startup attempts. The furnace will not start until the fuel pump and fuel line are fully primed. Priming the fuel line is achieved by repeatedly restarting the system, allowing the pump time to remove air from the fuel line.

The startup process consists of **two start attempts** and usually takes about **6 minutes.** During each attempt:

- The coolant pump runs continuously.
- The combustion fan speeds up and slows down intermittently.

故障排查：冷却液不循环

灌注排气过程中，如果冷却液没有循环，请按以下步骤操作。

1. 检查管路：确认所有软管连接正确，所有暖风机阀门完全打开。

2. 开启设备：冷却液泵将自动启动，尝试灌注时可能出现脉动。

3. 等待燃油泵发出滴答声：一听到滴答声，就应在加热炉开始启动循环前关闭设备。

4. 等待完全停机：必须等设备完全关闭后再继续。

5. 重复上述过程：可能需要重复四五次才能彻底排出空气。观察水箱顶部是否有小气泡穿过冷却液上升，这表明空气正在排出。

灌注排气成功的表现

• 冷却液水箱内出现小气泡。

• 泵的声音变得平稳且更安静。

• 冷却液表面出现旋涡或扰动。

出现上述表现时，说明泵已完成灌注，冷却液正常循环，可以正常运行加热炉。

首次启动

扫描左侧二维码，观看 Dieselheat 温控器使用视频。

冷却液泵完成灌注后，保持开关开启，加热炉将开始尝试启动。燃油泵和燃油管充分充满燃油后，加热炉才能启动。通过反复重新启动系统，让泵有时间排出燃油管中的空气，可完成燃油管灌注。

一次启动过程包含两次启动尝试，通常约需 6 分钟。每次尝试期间：

• 冷却液泵持续运行。

• 燃烧风机间歇加速和减速。

• 燃油泵输送燃油。（续下页）

- The fuel pump works to deliver fuel.

After completing both start attempts, the furnace will shut down and enter a waiting state. To initiate another startup process switch off the furnace for 3 seconds and then switch it back on again.

Multiple restarts may be necessary, especially if the fuel line is long.

Note: The Webasto furnace will lock out after approximately **6 failed start attempts.** Always double-check the fuel line, pump orientation, and fuel source before starting the furnace. To reset a locked-out furnace follow the procedure in the trouble shooting section below.

Post Initial Startup

As the furnace begins heating the coolant, all hoses will start to warm up. Gently move your hands over each hose to check that they are all reaching a similar temperature.

After a few minutes, the system should feel warm to the touch. The hoses connected to and from the cabin fan heater (assuming it is switched on) should also be approximately the same temperature as the main hoses.

If everything is warming evenly:

1. Top up the coolant level until it is about **20 mm below the top** of the tank.
2. Replace the filler cap securely.
3. Allow the system to continue heating for **15 minutes**.
4. Carefully inspect the entire system for any signs of leaks.

The furnace will cycle down, once the coolant reaches approximately **80°C.** At this point:

- All hoses should maintain a similar temperature.
- If a fan head is installed and switched on, it should begin blowing hot air.

Important: If water was used during commissioning or testing, be sure to drain the system completely and refill it with the proper coolant.

Congratulations! You have successfully commissioned your system.

Note: Always turn the furnace off using its own switch. Do not cut power to the furnace at any other point during operation.

首次启动（续）

两次启动尝试结束后，加热炉会停机并进入等待状态。要再次启动，应通过控制开关关闭加热炉 3 秒，然后重新开启。

可能需要多次重启，尤其是燃油管较长时。

注意：Webasto 加热炉在约 6 次启动失败后会锁定。启动前必须再次检查燃油管、泵方向及燃油来源。解除锁定请按照后文故障排查章节的步骤操作。

首次启动后的检查

加热炉开始加热冷却液时，所有软管会逐渐变暖。轻轻移动手检查每根软管，确认它们温度相近。

几分钟后，系统触感应变暖。如果舱室暖风机已开启，其进出软管的温度也应与主管大致相同。

如果各处均匀升温：

1. 补充冷却液，使液位约低于水箱顶部 20 mm。
2. 装回并拧紧加注盖。
3. 让系统继续加热 15 分钟。
4. 仔细检查整个系统是否泄漏。

冷却液达到约 80°C 后，加热炉会降低运行输出。此时：

• 所有软管应保持相近温度。

• 如已安装并开启暖风机，应开始吹出热风。

重要：如果调试或测试时使用了水，必须将系统完全排空，再加注合适的冷却液。

恭喜！系统调试已成功完成。

注意：始终通过加热炉自身的控制开关关闭设备。运行过程中，不得从其他位置切断其电源。

Commissioning Troubleshooting

Problem	Things to Check
Dieselheat thermostat has no power (will not turn on)	Generally this will be caused by lack of power. ● Check the thermostat power loom has been properly connected. ● Check the 5A fuse for the Dieselheat thermostat is not blown and is correctly inserted. ● Check the loom is properly plugged into the Dieselheat thermostat. ● Use a multimeter to test for power across the red and black wires at the plug where the thermostat connects to the loom.
On initial switch on the Dieselheat thermostat says NO FURNACE	This indicates that the thermostat is unable to communicate with the furnace via the controller cable. ● Check the Eberspacher CAN connector is plugged into the thermostat connector. (refer electrical chapter, CAN Communication Connector). ● Check the CAN connectors for loose or pushed back pins. ● Check that the furnace red cable with the black sheath connected to the 3 fuse fuse box is on the positive battery terminal and the brown wire is on the negative. ● Check the furnace fuses. ● Confirm the furnace has power by using a multimeter to check the voltage at the furnace power connector (the plug on the bottom of the furnace with thick brown and red wires).
On initial switch on, furnace does nothing, the Webasto switch blinks 5 times quickly then does a number of slower blinks	This is generally caused by a fault, use the fault codes to find and rectify the situation. ● Count the slow blinks and refer to the user guide for the fault numbers. ● Use the QR code below to access a more detailed furnace fault code listing and resolve the fault.
Furnace tries to start but doesn't start.	The most common cause of this issue is lack of fuel. Refer back to the Commissioning section for the correct initial start procedure. ● Check the fuel pump is orientated correctly (refer fuel system section). ● Check fuel flow in the fuel line by shining a torch on the fuel line and looking for bubbles or advancing fuel front as the pump ticks. ● If installed, check the fuel filter has filled with fuel. ● The fuel pump will tick more loudly until filled with fuel. Check fuel pump noise when pump is pumping. ● Check all fuel line connectors are tight and air cannot enter the fuel line. This is particularly important if the fuel tank is below the level of the fuel pump. ● Check the battery voltage is above 12.5V. ● Check furnace is wired directly to batteries as per install instructions.
Furnace has tried to start	● The furnace has locked out due to excessive start attempts and will need to

调试故障排查

温控器无电，无法开启

通常由供电缺失引起。检查温控器电源线束是否正确连接；检查温控器的 5 A 保险丝是否熔断、是否正确插入；检查线束是否牢固插入温控器。在温控器与线束连接的插头处，用万用表测量红线与黑线之间是否有电压。

首次开启时，温控器显示 NO FURNACE

原文说明：这表示温控器无法通过控制器电缆与加热炉通信。

• 检查 Eberspächer CAN 接头是否插入温控器接口，参见电气章节的 CAN 通信连接器部分。

• 检查 CAN 接头针脚是否松动或被推回。

• 检查接至三保险丝保险丝盒的加热炉红线（带黑色护套）是否接电池正极，棕线是否接负极。

• 检查加热炉保险丝。

• 用万用表检查加热炉电源插头处的电压。该插头位于加热炉底部，带较粗的棕线和红线。

译注：以上为原文保留内容。本手册为 Webasto 系统，第 12 页明确要求关闭 CAN 通信，且 CAN 接头不用于 DH15oe。这一故障排查条目与前文不一致，使用前请向 Dieselheat 核实。

首次开启时加热炉无动作，Webasto 开关先快闪 5 次，再慢闪若干次

通常由故障引起，应通过故障码查找并排除原因。

• 数出慢闪次数，并查阅用户指南中的故障编号。

• 扫描左侧二维码，查看更详细的加热炉故障码列表并排除故障。

加热炉尝试启动但无法启动

最常见原因是缺油。正确首次启动步骤见调试章节。

• 检查燃油泵方向是否正确，参见燃油系统章节。

• 用手电照亮燃油管，在泵发出滴答声时观察气泡或燃油前端是否前进，确认供油情况。

• 如安装了燃油滤清器，检查其是否充满燃油。

• 燃油泵未充满燃油时，滴答声会更响。检查泵工作时的声音。

• 检查所有燃油接头是否紧固、不进气。油箱低于燃油泵时尤其重要。

• 检查电池电压是否高于 12.5 V。

• 检查加热炉是否按安装说明直接连接电池。

加热炉多次尝试启动后完全无反应

启动尝试过多导致加热炉锁定，需要解锁。请按下页底部的解锁步骤操作。

表格标题：Problem = 故障现象；Things to Check = 检查项目。

multiple times and is now ‘dead’.	be unlocked. Follow the unlocking procedure at the bottom of the page.
Furnace starts and runs for approx. 1 minute, then shuts down very quickly.	• Check coolant level and circulation as per commissioning instructions. • Check fuel supply as per above.
System works but the air heating fan head is not hot.	• Check the electronic coolant valve is opening when the air heating fan is turned on. This can be checked by listening to the valve, it will make a buzzing/motoring sound for approx 3 seconds when the fan is turned on or off. • Review plumbing and use of bypass valves as per the suggested system schematics.
System runs but there is no hot water.	• Check the system has been allowed to adequately pre-heat (min 15 minutes). • Check the hot and cold water pipes are connected correctly to the cold in and hot out connectors. • Check the thermostatic tempering valve is installed with the ‘H’ at the top and the ‘C’ at the bottom.
Fan heads get hot but do not blow hot air.	• Check fans are wired with correct polarity. • Check fan head has adequate return air as per instructions.

Webasto Furnace Unlocking Procedure

1. Rectify the fault that caused the lockout first.
2. Switch the heater ON at the controller.
3. Within 10 seconds, remove heater fuse F1 (20 A).
4. Leave the fuse out for at least 10 seconds, then refit it.
5. Switch the heater OFF at the controller, then switch it ON to try restarting.

调试故障排查（续）

加热炉多次尝试启动后完全无反应（续）

需要解除锁定。请按本页底部的解锁步骤操作。

加热炉启动并运行约 1 分钟后迅速停机

• 按调试说明检查冷却液液位和循环情况。

• 按前页说明检查燃油供应。

系统运行，但暖风机不热

• 检查开启暖风风机时，电动冷却液阀是否打开。开关风机时，阀门应发出约 3 秒的嗡鸣 / 电机声，可据此检查。

• 按建议的系统示意图，检查管路及旁通阀配置。

系统运行，但没有热水

• 确认已充分预热，至少 15 分钟。

• 检查冷热水管是否分别正确连接冷水入口及热水出口。

• 检查恒温混水阀安装方向：“H”应在上方，“C”应在下方。

暖风机已变热，但不吹热风

• 检查风机接线极性是否正确。

• 按说明检查暖风机是否有足够回风。

Webasto 加热炉解锁步骤

1. 首先排除导致锁定的故障。
2. 在控制器上开启加热器（ON）。
3. 在 10 秒内拔出加热器保险丝 F1（20 A）。
4. 保持保险丝拔出至少 10 秒，然后重新装入。
5. 在控制器上关闭加热器（OFF），然后再次开启（ON），尝试重新启动。

TWO YEAR PRODUCT WARRANTY

Dieselheat offers a 2 year warranty on this product. Upon receipt of proof of purchase of a product, Dieselheat will, where possible, provide product support via telephone or email. If Dieselheat determines that the issue necessitates the return of the product for inspection and/or repair, it is your responsibility to uninstall the product and return the product at your cost to Dieselheat. Upon repair of the product, Dieselheat will return the product to you at no cost. It is your responsibility to reinstall the product. See our full warranty terms on our website.

两年产品保修

Dieselheat 为本产品提供两年保修。收到产品购买凭证后，Dieselheat 将尽可能通过电话或电子邮件提供产品支持。

如果 Dieselheat 判断需要将产品送回检查及 / 或维修，您需要自行拆卸产品，并承担寄回 Dieselheat 的费用。

产品维修完成后，Dieselheat 将免费寄回给您。重新安装产品由您负责。

完整保修条款请参阅我们的网站：

www.dieselheat.com.au