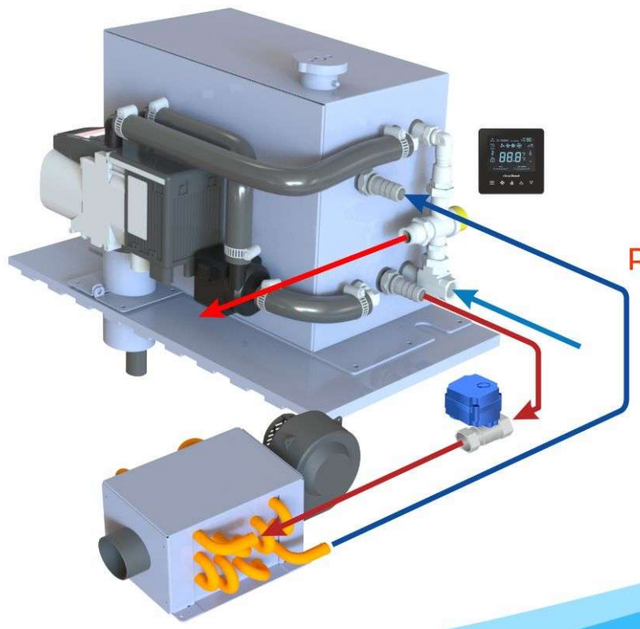


dieselheat

DH15/DH30 HYDRONIC
DH15 Duo, DH15 Duo D
HOT WATER INSTALLATION MANUAL

V10 2026



STOP
DON'T PANIC
READ THE INSTRUCTIONS

WaterMark

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39 Golden Valley Road Cygnet 7112

DH15/DH30 水暖式热水系统

DH15 Duo、DH15 Duo D

热水系统安装手册

V10 · 2026

请先停下来

不要慌张

请阅读安装说明

sales@dieselheat.com.au

39 Golden Valley Road, Cygnet 7112

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。

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：原文中的差异

原文在不同位置分别提到 V3 和 V4 温控器，译文按原文保留。燃油泵安装角度、排气尺寸及个别接管说明也存在正文与引用图示表述不同的情况，本译文未擅自改动。具体适用要求应向 Dieselheat 确认。

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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 **DH15/DH30 system**, for both **marine** and **RV** use.

Relevant extracts from the **Eberspacher D5E 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/DH30 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 DH15/DH30 tank. An additional, 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 D5E 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 DH15/DH30 系统在船舶和房车上的安装。

为方便查阅，本手册收录了 Eberspächer D5E 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/DH30 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 DH15/DH30 水箱内部的生活用水板式换热器。也可以另外选配舱室暖风机（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：D5E 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.
- **Marine Installations:** When installing in a marine setting, ensure the Power Pack is positioned so the exhaust length does not exceed 2 metres. Refer to the chapter on marine exhausts for more details.
- **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.

If you need to get system error codes, remove a furnace lock, or run diagnostics, you will require the Dieselheat V3 thermostat or an EasyStart Pro controller.

Never start the furnace without coolant in the system.

Component Location

The DH15/DH30 kit is designed to have the tank and furnace mounted together and this is how it is shipped by default.

The furnace can also be located up to 4m from the hot water service tank, and as the furnace is IP rated it can be installed under the floor of a vehicle. However, we always suggest installing splash and stone protection in this case.

When remote-mounting the furnace, the connecting hoses can be covered in insulation tubing if the vehicle/boat is in an ultra-cold climate, but this is not necessary in most Australian conditions.

External/remote-mounting:

- Increases the volume of coolant in the system, which is beneficial.
- Facilitates installation in tight spaces.
- Enables the furnace to be installed in a location that allows for better noise management.
- For marine installations, enables the furnace to be moved to a location where the exhaust is easier to install.

When remote-mounting the furnace:

- Take appropriate precautions to prevent external hose damage where hoses pass through walls or bulkheads.
- If the hoses need to be routed around corners or bends and there is a possibility of kinking, fit elbows into the hose.
- Always provide mechanical protection from stones, etc.
- Always protect from excess dust ingression.

Diesel Coolant Furnace Location Options

Caravan/RV

- On the side of the hot water service tank (default) - this gives the most compact

安装与运行注意事项（续）

• 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。

• 船用安装：在船上安装时，Power Pack 动力组件的位置应确保排气管总长不超过 2 m。详情参见船用排气章节。

• 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。

读取系统故障码、解除加热炉锁定或进行诊断，需要使用 Dieselheat V3 温控器或 EasyStart Pro 控制器。

系统中没有冷却液时，切勿启动加热炉。

部件安装位置

DH15/DH30 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。

加热炉也可以与热水系统水箱分开安装，距离最多为 4 m。由于加热炉具有 IP 防护等级，可以安装在车辆地板下方，但我们始终建议在此情况下增加防溅水及防石击保护。

在极寒地区使用的车辆或船舶，分体安装时可为连接软管加装保温套管。澳大利亚多数气候条件下无需这样做。

外置 / 分体安装的优点

• 增加系统冷却液容量，有利于系统运行。

• 便于在狭小空间安装。

• 可选择更有利于控制噪声的安装位置。

• 船用时可将加热炉移至更方便安装排气系统的位置。

分体安装时

• 软管穿过墙壁或舱壁时，应采取适当措施防止外部损伤。

• 软管绕过转角或弯曲处可能折瘪时，应安装弯头。

• 必须提供防石击等机械保护。

• 必须防止过多灰尘进入。

柴油冷却液加热炉的安装位置选择

旅行拖车 / 房车：安装在热水系统水箱侧面（默认），使部件集中，整体最紧凑。（接下页）

installation with the components close together.
- Externally in a box (which must be ventilated when the furnace is running).
- Under the chassis on a vehicle. This is a good option because it means there will be no fuel line or exhaust connections in the vehicle, and noise will be reduced in the vehicle.

Marine
- On the side of the hot water service tank (default) - this gives the most compact installation with the components close together.
- Separated from the tank in the engine room.
- Separated from the tank in a locker/lazarette, which can facilitate easier installation of the marine exhaust system.

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

Note: The coolant circulating pump must be level with the tank connection point or below it.

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.

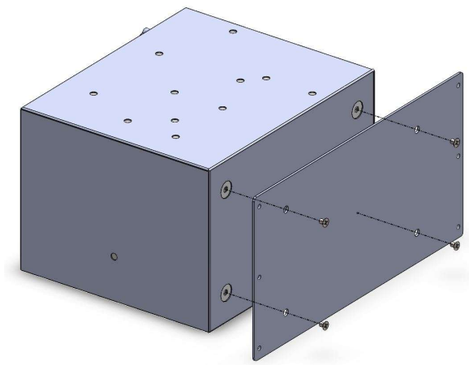
Hot Water Service Tank Locations

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

For marine installations, the hot water service tank can be located in the engine room, under a seat in the cabin, or in the engine compartment.

Ideally, the hot water service tank should be the highest point in the system. If this is not possible, a separate header tank may be required.

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 (do not hang it off a wall by the mounting plate).
- The supplied mounting plate can be fixed to the back or the base of the hot water service tank.
- Install the plate with the 4 supplied countersunk screws.
- Note that the mounting plate is asymmetrical; the longer side is designed to go under/behind the plumbing.



Note: Due to manufacturing tolerances in the location of the threaded attachment points on the tanks, it may be necessary to ease (enlarge) the holes for the mounting plate screws slightly when the mounting plate is installed.

Note: The threaded inserts on the tanks are 10mm deep - forcing a screw past this depth may result in damage to the inner tank.

部件位置及水箱安装（续）

旅行拖车 / 房车（续）

• 外置箱体内：加热炉运行时必须通风。

• 车辆底盘下方：这是较好的选择，车内无需布置燃油管或排气连接，也可降低车内噪声。

船舶

• 热水系统水箱侧面（默认）：部件集中，安装最紧凑。

• 与水箱分开，安装在机舱内。

• 与水箱分开，安装在储物舱或艉部储物舱内，可能更便于安装船用排气系统。

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：冷却液循环泵必须与水箱连接口等高或低于连接口。

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。

船用时，可将水箱安装在机舱内、舱室座椅下方或发动机舱内。

理想情况下，热水系统水箱应处于系统最高点。如果无法实现，可能需要另设高位补液箱。

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；不得仅靠安装板将水箱悬挂在墙上。

• 随附安装板可以固定在水箱背面或底部。

• 使用随附的 4 颗沉头螺钉固定安装板。

• 安装板不对称，较长的一侧应位于管路下方或后方。

注意：由于水箱螺纹固定点的位置存在制造公差，安装时可能需要稍微扩大安装板上的螺钉孔。

注意：水箱上的螺纹嵌件深度为 10 mm。强行将螺钉拧入超过此深度，可能损坏内胆。

图示说明

左侧图示为水箱与安装板的相对安装位置。

Options For DH Hydronic System Controls

Controller	Capability
 Dieselheat Thermostat V4	**This is the recommended setup.** Can Do • Room temp control via auto fan speed control • 3 Speed manual fan control (Kalori or Dieselheat fans) • Eberspacher furnace on/off via start signal • Eberspacher hydronic furnace diagnostics • Hot water temperature • Fuel level (optional)
 Eberspacher EasyStart Pro	Can Do • Eberspacher hydronic furnace diagnostics • Furnace on/off via digital communication Cannot Do • Room temp control • Fan speed control
	The Eberspacher furnace and Kalori fan heating heads can also be switched on/off with a toggle switch. Can Do • Eberspacher furnace on/off via start signal • 2 Speed manual fan control Cannot Do • Room temp control via auto fan speed control • 3 speed manual fan control • Eberspacher hydronic furnace diagnostics • Furnace on/off via digital communication

DH Hydronic 系统控制方案

Dieselheat V4 温控器（推荐配置）

可实现：

• 通过自动调节风速控制室温。

• 三档手动风速控制（Kalori 或 Dieselheat 风机）。

• 通过启动信号开启 / 关闭 Eberspächer 加热炉。

• Eberspächer 水暖加热炉诊断。

• 热水温度显示。

• 燃油液位显示（选配）。

Eberspächer EasyStart Pro

可实现：

• Eberspächer 水暖加热炉诊断。

• 通过数字通信开启 / 关闭加热炉。

不能实现：

• 室温控制。

• 风速控制。

拨动开关

Eberspächer 加热炉及 Kalori 暖风机也可使用拨动开关开启 / 关闭。

可实现：

• 通过启动信号开启 / 关闭 Eberspächer 加热炉。

• 两档手动风速控制。

不能实现：

• 通过自动调节风速控制室温。

• 三档手动风速控制。

• Eberspächer 水暖加热炉诊断。

• 通过数字通信开启 / 关闭加热炉。

左侧表格标题

Controller：控制器

Capability：功能

Can Do：可实现

Cannot Do：不能实现

Set Up the Tank

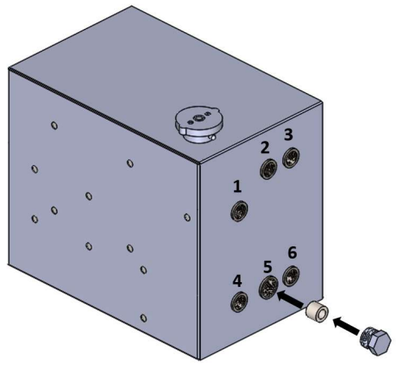
The tank is shipped with the tempering valve installed and these connections are pressure tested prior to shipping.



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:

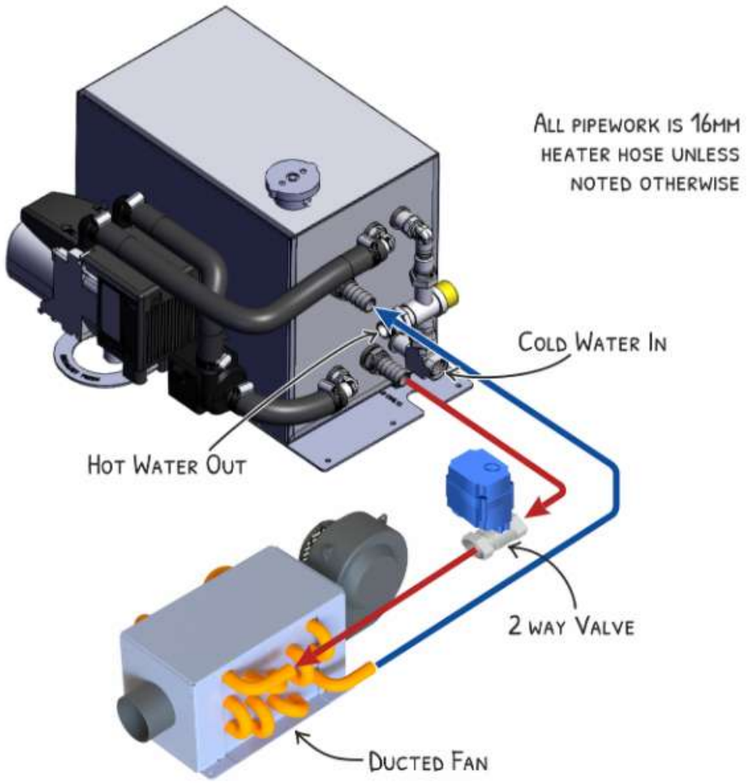
- Within 1.5 m of the hot water system, and
- Less than 0.5 m above the top of the coolant tank

Follow these steps:

1. Do not install the bypass hole blocking ring (already omitted for DH15/DH30 Duo).
2. Fit hose tails to ports 1 and 5 (these are pre installed for DH15/DH30 Duo)
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.

DH15 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（DH15/DH30 Duo 已省略该环）。
2. 在接口 1 和 5 上安装软管接头（DH15/DH30 Duo 已预装）。
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：DH15 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



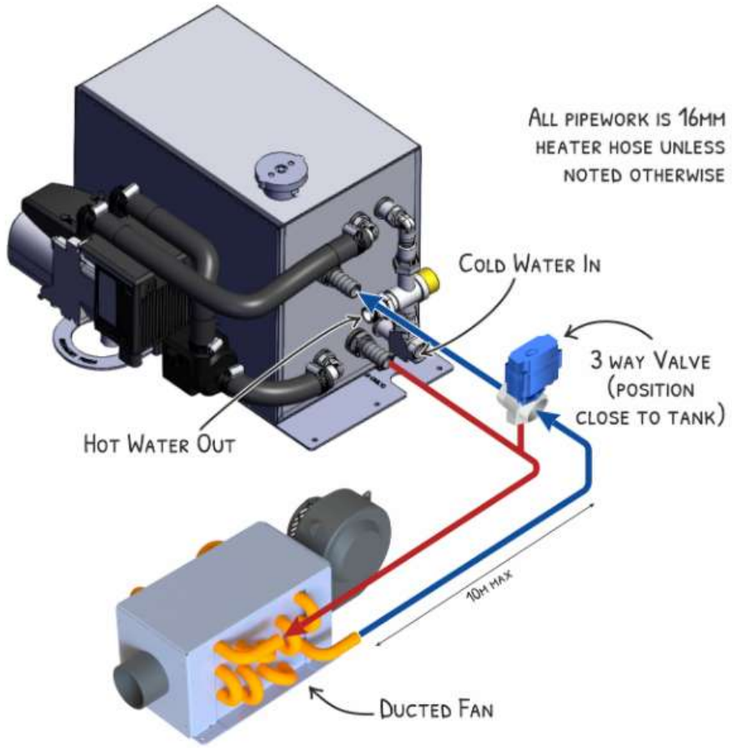
- Systems with multiple fan heads
- Fan heads located more than 0.5 m above the coolant tank level
- Fan heads positioned more than 1.5 m away from the coolant tank
- This system will support a total pipe length of approx 20m

Follow these steps:

1. Install the bypass hole blocking ring (This will be pre-installed if you ordered the kit with the 3-way valve).
2. Fit hose tails to ports 1 and 5. (these are pre installed for DH15/DH30 Duo)
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.

DH15 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。如果订购的是带三通阀的套件，该环已预装。
2. 在接口 1 和 5 上安装软管接头（DH15/DH30 Duo 已预装）。
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：DH15 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 D5E 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 or in a boat engine room), 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.

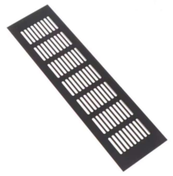
Note: The furnace, tank, and enclosure do not need to be kept cool—only the combustion intake air requires a supply of cool air.

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

D5E 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（如床下或船舶机舱内）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 and Kalori hydronic air heating heads.

Dieselheat Ducted Fan

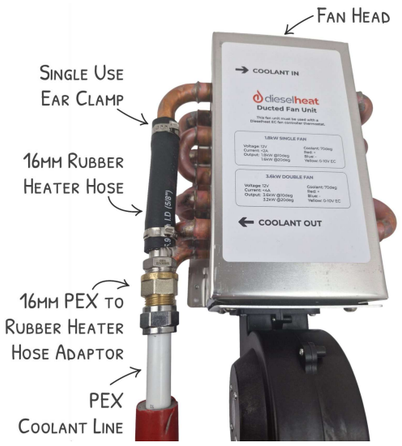


Kalori Fan Heads



- Fan heads should be mounted as close to the area that requires heating as possible.
- Kalori Fan heads can be mounted in any orientation.
- **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.

Piping to Fan Heads



Unless they are very close to the furnace, piping to fan heads is done with insulated PEX piping.

Fan heads use 16mm hose tails, so it is necessary to adapt the 16mm PEX to 16mm rubber heater hose.

Always run the PEX into the compartment with the fan head and then use a short section of the more flexible rubber pipe to make the final connection to the fan head.

空气供暖

Dieselheat 系统可配合本品牌及 Kalori 水暖暖风机使用。

左图：Dieselheat 风管式暖风机。

右图：Kalori 暖风机。

暖风机安装

- 暖风机应尽量靠近需要供暖的区域。
- Kalori 暖风机可以任意方向安装。
- 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。

暖风机管路

除非暖风机离加热炉很近，否则应采用带保温层的 PEX 管连接。

暖风机使用 16 mm 软管接头，因此需要将 16 mm PEX 管转换连接到 16 mm 橡胶暖风软管。

应将 PEX 管引入暖风机所在舱室，再用一小段柔性更好的橡胶软管完成与暖风机的最终连接。

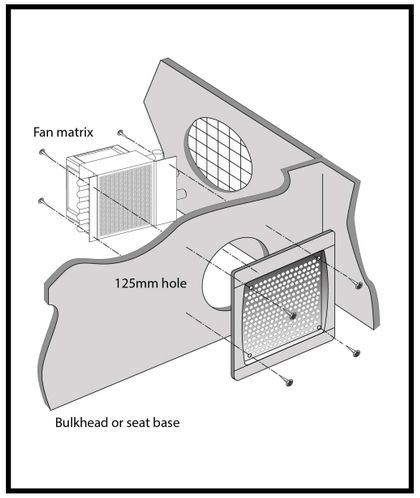
图示文字对照

Single Use Ear Clamp：一次性耳式卡箍

16mm Rubber Heater Hose：16 mm 橡胶暖风软管

16mm PEX to Rubber Heater Hose Adaptor：16 mm PEX 管转橡胶暖风软管接头

PEX Coolant Line：PEX 冷却液管路



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.

Return Air Vent Requirement

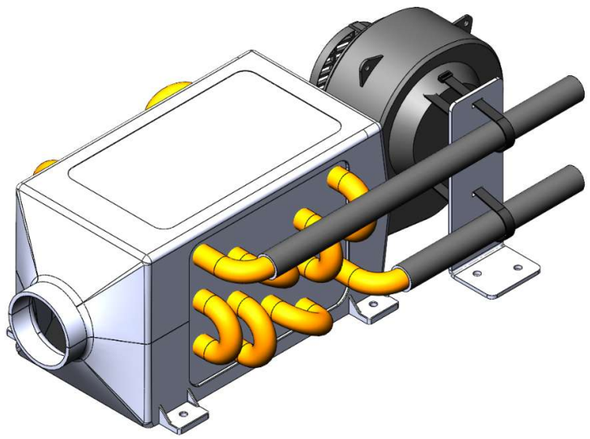
A 90 mm return air vent is supplied with the Dieselheat ducted fan heater. This vent, or an equivalent, must be installed on the cabinet that houses the fan heater.

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.



回风与管路支撑

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。

回风口要求

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。

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

上图表示暖风机与安装隔板 / 座椅底座的相对位置。

下图显示暖风机管路布置；管路和阀门应有独立支撑。

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.

If remote-mounting the furnace, the furnace to hot water service tank plumbing should be done with rubber or silicone hoses of 18-20mm ID and secured with quality hose clamps. The hose and clamps provided in the diesel furnace kits are designed for this purpose and should be utilised whenever possible.

Coolant Circulation Pump

The coolant circulation pump supplied as part of the furnace kit will support systems with up to approximately 20m of coolant pipe.

Larger systems, particularly on boats, will require a booster pump. This can be powered and switched via a relay that can be attached to the Eberspacher D5E wiring loom.

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.

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。

加热炉分体安装时，加热炉与热水系统水箱之间应采用内径 18-20 mm 的橡胶或硅胶软管，并使用优质软管卡箍固定。柴油加热炉套件中随附的软管和卡箍就是为此设计，应尽可能使用。

冷却液循环泵

加热炉套件随附的冷却液循环泵，可支持冷却液管路总长约 20 m 的系统。

更大的系统，尤其是船用系统，需要增压泵。可以通过连接至 Eberspächer D5E 线束的继电器，为增压泵供电并控制其启停。

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。

重要提示

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

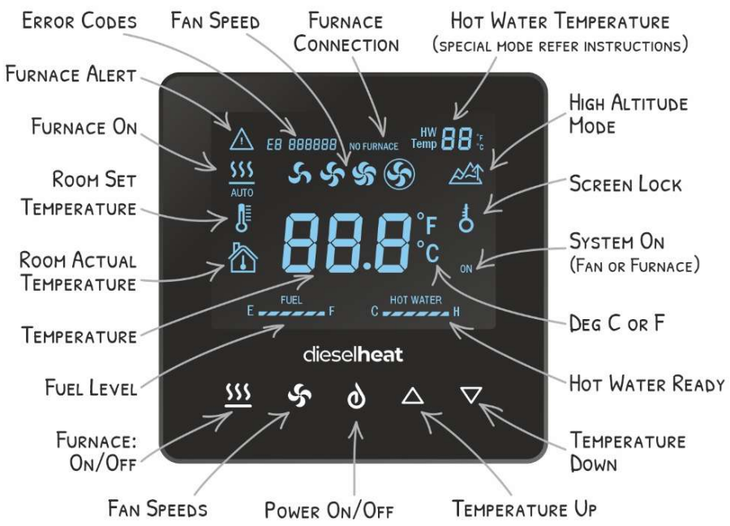
It is recommended to always install either an automatic or manual valve inline with the fan head so that the coolant circulation can be closed off completely when the heater is not needed. This stops the cabin fan heater from acting like a static radiator in a warm climate.

Temperature control can be achieved via 2 methods.

Method 1: Manual Fan Control (Kalori Fans)
All Kalori fans heads have 2 speed fans. These fans can be run on high or low speed, or switched off to manually control the temperature.

Method 2: Thermostat Control
The Dieselheat hydronic thermostat (V3) is designed specifically for hydronic system control. The thermostat provides:

- 3 manual and also automatic fan speed control for Dieselheat ducted fans and also Kalori fans
- an ignition signal for diesel furnace (if not using Eberspacher D5E)
- a signal to open a coolant valve when a fan head fan is on.
- digital CAN control of the Eberapcher D5E furnace including on/off, fault code reading, fault code erasing and activation of high altitude mode.
- Hot water temperature (system readiness) and fuel level (optional).



水温与室温控制

室温控制

建议始终在暖风机管路中安装自动或手动阀门，以便不需要供暖时完全关闭冷却液循环，避免暖风机在温暖气候下像被动散热器一样持续散热。

室温可通过以下两种方式控制。

方法 1：手动风速控制（Kalori 风机）

所有 Kalori 暖风机均配两档风速风机。可选择高速、低速或关闭，手动控制温度。

方法 2：温控器控制

Dieselheat 水暖温控器（V3）专为水暖系统设计，提供以下功能：

• Dieselheat 风管式暖风机及 Kalori 风机的三档手动风速和自动风速控制。

• 柴油加热炉点火信号（不使用 Eberspächer D5E 时）。

• 暖风机风扇开启时，输出冷却液阀开启信号。

• 通过数字 CAN 通信控制 Eberspächer D5E 加热炉，包括启停、读取故障码、清除故障码和启用高海拔模式。

• 热水温度（系统就绪状态）及燃油液位（选配）。

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 | Hot Water Ready：热水就绪

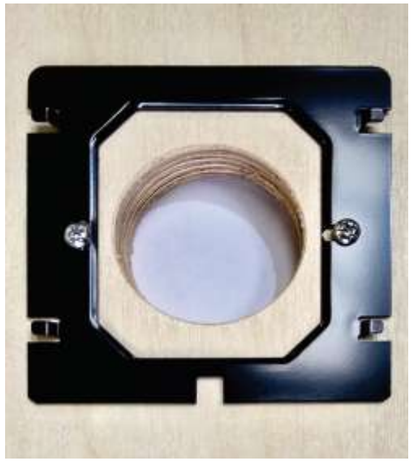
Deg C or F：摄氏或华氏 | Screen Lock：屏幕锁定

High Altitude Mode：高海拔模式

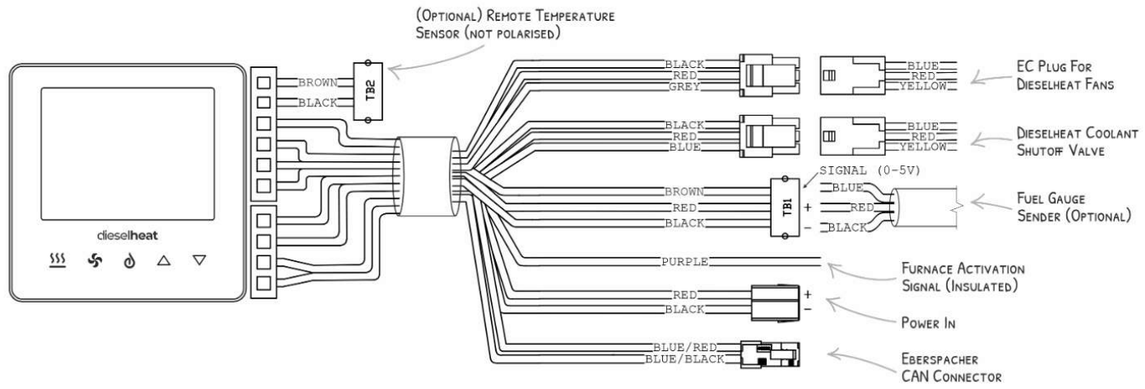
System On (fan or furnace)：系统已开启（风机或加热炉）

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.**







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。

接线图文字对照（由上至下）

(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)

加热炉启动信号（已做绝缘处理）

Power In

电源输入

Eberspächer CAN Connector

Eberspächer CAN 通信连接器

图片说明

左上：温控器安装底板及穿线孔。

右上：温控器背面与线束。

下方：温控器及线束各连接分支。原图中的插头形状、线序及连接关系保持不变。

线色：Brown 棕色；Black 黑色；Red 红色；Grey 灰色；Blue 蓝色；Yellow 黄色；Purple 紫色；Blue/Red 蓝 / 红；Blue/Black 蓝 / 黑。

Signal (0-5V)：信号（0-5 V）；“+”正极；“-”负极；TB1、TB2 为端子标识。

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 DH15/DH30 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 DH15/DH30 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 DH15/DH30 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

DH15/DH30 已通过 WaterMark 认证，并符合无铅要求。

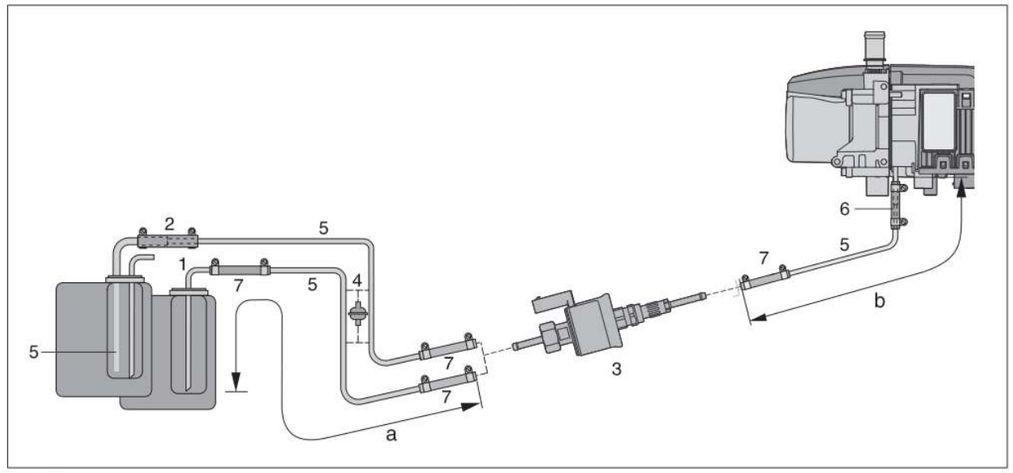
认证标识文字

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



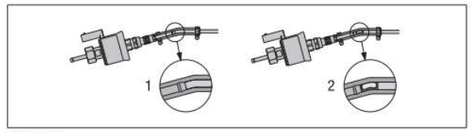
Picture 20

1 Tank connection (di = Ø 2 mm, da = Ø 4 mm) – installed in the vehicle's own tank fitting
2 Adapter (Ø 7.5 / 3.5 mm) – connected to the vehicle's own tank fitting, at a socket Ø 8 mm, used to pass through the intake line (fuel pipe 4 x 1) up to just before the bottom of the tank.
3 Metering pump
4 Fuel filter – only required for contaminated fuel
5 Fuel pipe, 4 x 1 (di Ø 2 mm)
6 Adapter (Ø 4.5 / 3.5 mm)
7 Fuel hose, 3.5 x 3 (di Ø 3.5 mm), approx. 50 mm long

Permissible line lengths: a = max 2m; b = max 6m

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.



Picture 19

1 correctly laid lines
2 incorrectly laid lines – bubbles form

- 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. The outlet is on the opposite side to the power cable and the pump must be angled upwards at an angle of 15-35 degrees.

燃油系统

图 20：燃油系统部件编号

1. 油箱连接管（内径 Ø2 mm，外径 Ø4 mm），安装在车辆原有油箱接头内。
2. 转接头（Ø7.5 / 3.5 mm），连接至车辆原有油箱接头的 Ø8 mm 接口，使吸油管（4 × 1 燃油管）穿入油箱，延伸至接近箱底的位置。
3. 计量燃油泵。
4. 燃油滤清器：仅在燃油有污染时需要。
5. 燃油管，4 × 1（内径 Ø2 mm）。
6. 转接头（Ø4.5 / 3.5 mm）。
7. 燃油软管，3.5 × 3（内径 Ø3.5 mm），长度约 50 mm。

允许管长：a 最长 2 m；b 最长 6 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。

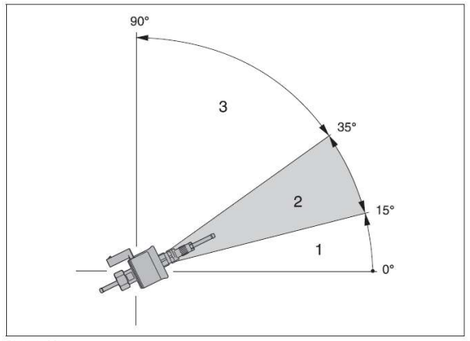
图 19：连接方式

1：正确的管路连接。

2：不正确的管路连接，会形成气泡。

燃油泵方向

必须正确安装燃油泵。出口位于电源线的相反一侧；泵应以 15-35° 的角度向上倾斜。



Picture 23

1 Installation position between 0° – 15° is not allowed
2 Preferred installation position within the range 15° – 35°
3 Installation position within the range 35° to 90° is allowed

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

Note: The pump contains a small filter behind the nut on the inlet side.

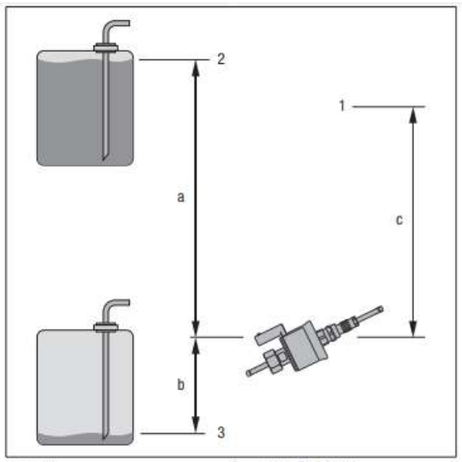
A small inline pre-filter is available as an option to prevent the fuel pump filter clogging if the fuel is dirty.

Fuel Source

The DH15/DH30 can be connected to an auxiliary fuel tank, to a day tank or to a connection point on the main fuel system or generator fuel system.

When connecting to main fuel systems in boats or 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.

Allowable Suction Head



Picture 24

1 Connection at the heater
2 max. fuel level
3 min. fuel level

Pressure head from vehicle tank to metering pump:
a = max. 3000 mm

Suction head in pressure-less vehicle tank:
b = max. 500 mm for petrol
b = max. 1000 mm for diesel

Suction head in a vehicle tank in which negative pressure occurs during extraction (valve with 0.03 bar in the tank cap):
b = max. 150 mm for petrol
b = max. 400 mm for diesel

Pressure head from the metering pump to the heater:
c = max. 2000 mm

燃油泵位置及允许吸程

图 23：燃油泵安装角度

1：0-15° 范围内不允许安装。

2：15-35° 为推荐安装范围。

3：35-90° 范围内允许安装。

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。

Eberspächer 燃油泵非常安静，选择位置时无需将噪声作为主要因素。

注意：燃油泵入口侧螺母后方装有一个小滤网。

可选配小型管路前置滤清器，防止较脏的燃油堵塞燃油泵滤网。

燃油来源

DH15/DH30 可以连接副油箱、日用油箱，或主燃油系统 / 发电机燃油系统上的取油点。

连接船舶或房车主燃油系统时，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）。此处原文表述需核实；请向 Dieselheat 确认取油位置。

图 24：允许吸程

1：加热炉燃油连接口。

2：最高燃油液位。

3：最低燃油液位。

油箱至计量泵的供油压头：a 最大 3000 mm。

无压力车辆油箱的吸程：汽油 b 最大 500 mm；柴油 b 最大 1000 mm。

取油时产生负压的车辆油箱（油箱盖阀门为 0.03 bar）的吸程：汽油 b 最大 150 mm；柴油 b 最大 400 mm。

计量泵至加热炉的提升高度：c 最大 2000 mm。

译注：本页角度图为原技术手册引用；前页安装正文规定向上倾斜 15-35°。图中汽油数值也按原引用保留，不表示本柴油系统可使用汽油。

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 a simple toggle switch, a Dieselheat thermostat, or the EasyStart Pro controller. The on/off switch wiring loom may be extended if required.

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 marine switchboards with DC bus bars.

Important Note

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：可使用普通拨动开关、Dieselheat 温控器或 EasyStart Pro 控制器启停加热炉。必要时可以延长启停开关线束。

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。

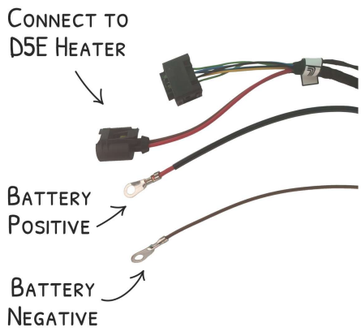
• 因此，应避免使用小型房车式保险丝盒，只使用带直流汇流排的商用级船用配电板。

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。

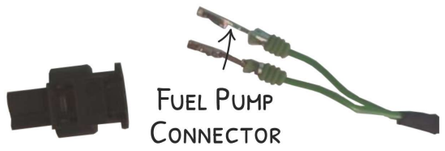
Main Loom Connections



Connect the wires shown below from the loom directly to the battery and heater. Red with black sheath is positive, brown is negative.The fuse box should be in close proximity to the battery.

If you need to extend the power wires use 6mm2 cable for the full run.

Fuel Pump



The fuel pump wires are not polarised. The cable bush has a small locking tab to lock the wires in place. Insert the fuel pump wires into the supplied cable plug. (Note that they can only be inserted one way. The side indicated by the arrow below faces the locking tab). Ensure the wires are all the way in (the green rubber should not protrude out the back of the plug). Ensure the plug clips in place on the fuel pump.

Follow the QR code to watch a 3min video on how to assemble this plug.

Coolant Pump



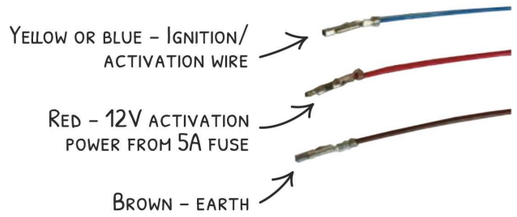
Connect each end of the coolant pump cable to the heater and coolant pump. Note that on pre-assembled systems the coolant pump wire will already be installed.

Do not attempt to run any other auxiliary coolant pumps off the furnace coolant pump power supply.

Manual Control Wires

Note: These wires are removed for kits with the Dieselheat Thermostat or Easystart Pro .

The furnace can work with an ignition/activation wire. Applying 12V to this wire will signal the furnace to turn on. Removing the 12V signals the furnace to shut down. In simple systems, a switch between the red and yellow wire will work to turn the system on or off.



主线束连接

将图示线束直接连接至电池和加热炉。带黑色护套的红线为正极，棕线为负极。保险丝盒应靠近电池安装。

如果需要延长电源线，整段线路均应使用 6 mm² 电缆。

图示：Connect to D5E Heater = 连接 D5E 加热炉；Battery Positive = 电池正极；Battery Negative = 电池负极。

燃油泵

燃油泵接线无极性。电缆连接件上有小锁扣，用于固定导线。将燃油泵导线插入随附插头中。注意只能按一个方向插入，图中箭头所指的一侧应朝向锁扣。

确认导线完全插入；绿色橡胶密封件不得从插头背部突出。确认插头牢固卡入燃油泵。

扫描左侧二维码，可观看约 3 分钟的插头组装视频。

Fuel Pump Connector：燃油泵连接器。

冷却液泵

将冷却液泵电缆两端分别连接至加热炉和冷却液泵。预装系统的冷却液泵接线已装好。

不得使用加热炉冷却液泵的供电线路驱动任何其他辅助冷却液泵。

手动控制线

注意：配备 Dieselheat 温控器或 EasyStart Pro 的套件中，这些导线已移除。

加热炉可以通过点火 / 启动信号线工作。向此线施加 12 V 即发出启动信号；撤去 12 V 即发出停机信号。简单系统可在红线与黄线之间连接开关来启停系统。

控制线图示文字

Yellow or Blue - Ignition/Activation Wire：黄色或蓝色：点火 / 启动信号线。

Red - 12V Activation Power from 5A Fuse：红色：由 5 A 保险丝供电的 12 V 启动电源。

Brown - Earth：棕色：接地 / 负极。

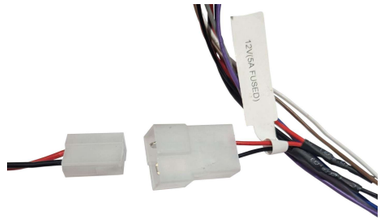
Using the Ebersapcher Fuse Box to Supply Power for the Dieselheat Thermostat.



For Dieselheat thermostats, a power loom for the thermostat is supplied. This loom utilises the spare fuse socket in the Eberspacher loom to supply power to the thermostat and ducted fan.

Insert the fuse connector into the spare socket in the Eberspacher loom. A 10A fuse is already supplied. Connect the other end to the thermostat loom.





Surplus Wires to Remove



The loom also includes white/red and brown/black wires which are pre-taped off. These are not used and in most cases will already be removed by Dieselheat.

CAN Communication Connector

This cable should not be cut or modified. If not being used do not hide this cable as it may be required for diagnostics in the future.

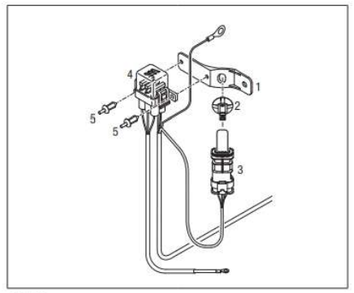


Plug this into the EasyStart Pro controller or the Dieselheat hydronic thermostat CAN connector.

Diagnostic Port

Diagnostic port with end cap. This must be left as is and should be installed in an accessible position next to the fuse box on the supplied mounting tab for future diagnostic purposes (see diagram below).





Picture 7

1 Combined bracket
2 Retainer clip
3 Diagnostics connector
4 Fuse bracket
5 Split rivet

温控器供电与通信接头

使用 Eberspächer 保险丝盒为 Dieselheat 温控器供电

Dieselheat 温控器随附电源线束。此线束利用 Eberspächer 线束上的备用保险丝插位，为温控器和风管式暖风机供电。

将保险丝连接件插入 Eberspächer 线束的备用插位。已随附一个 10 A 保险丝。另一端连接温控器线束。

应移除的多余导线

线束还包括已用胶带包好的白 / 红线和棕 / 黑线。这些导线不使用，通常 Dieselheat 已将其移除。

CAN 通信连接器

此电缆不得切断或改动。不使用时也不要将其隐藏，因为今后诊断时可能需要使用。

将其插入 EasyStart Pro 控制器，或 Dieselheat 水暖温控器的 CAN 接口。

诊断接口

诊断接口带有端盖。必须保持原样，并使用随附安装卡片，将其安装在保险丝盒旁易于接近的位置，以备日后诊断使用。参见左侧图示。

诊断接口安装图编号

1：组合支架（Combined bracket）

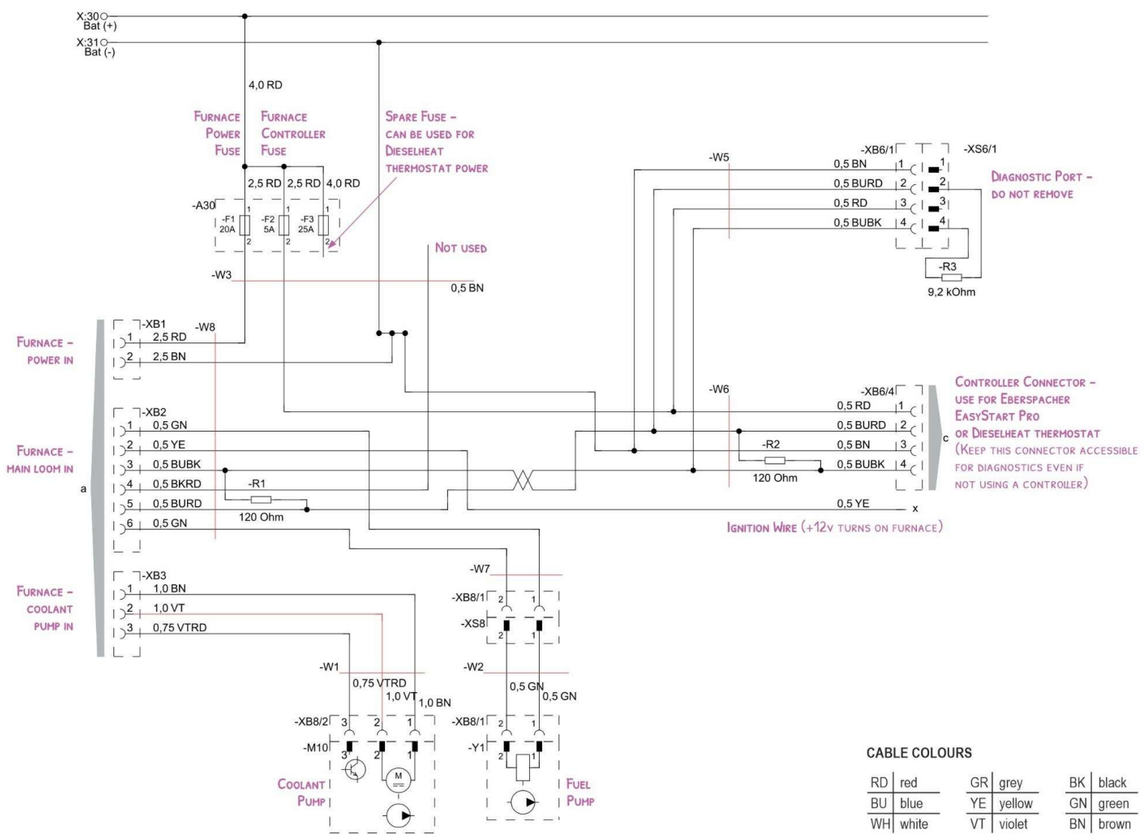
2：固定夹（Retainer clip）

3：诊断连接器（Diagnostic connector）

4：保险丝支架（Fuse bracket）

5：开口铆钉（Split rivet）

D5E CABLE HARNESS DETAILS



CABLE COLOURS

RD	red	GR	grey	BK	black
BU	blue	YE	yellow	GN	green
WH	white	VT	violet	BN	brown

D5E 线束详图

左侧电路图完整保留。连接器编号、针脚编号、电线截面积、电阻值及保险丝额定值均以原图标注为准。以下对应图中的英文标签。

上部：电池与保险丝

Bat (+)：电池正极

Bat (-)：电池负极

Furnace Power Fuse：加热炉电源保险丝

Furnace Controller Fuse：加热炉控制器保险丝

Spare Fuse - can be used for Dieselheat thermostat power：备用保险丝，可用于 Dieselheat 温控器供电

Not Used：不使用

左侧：加热炉连接器

Furnace - Power In：加热炉电源输入

Furnace - Main Loom In：加热炉主线束接口

Furnace - Coolant Pump In：加热炉冷却液泵接口

右侧：诊断与控制

Diagnostic Port - Do Not Remove：诊断接口，不得移除

Controller Connector - use for Eberspächer EasyStart Pro or Dieselheat Thermostat：控制器连接器，用于 Eberspächer EasyStart Pro 或 Dieselheat 温控器

Keep this connector accessible for diagnostics even if not using a controller：即使不使用控制器，也应使此连接器便于接近，以供诊断使用

Ignition Wire (+12V turns on furnace)：点火 / 启动线（施加 +12 V 启动加热炉）

下部：泵

Coolant Pump：冷却液泵

Fuel Pump：燃油泵

电线颜色代码（Cable Colours）

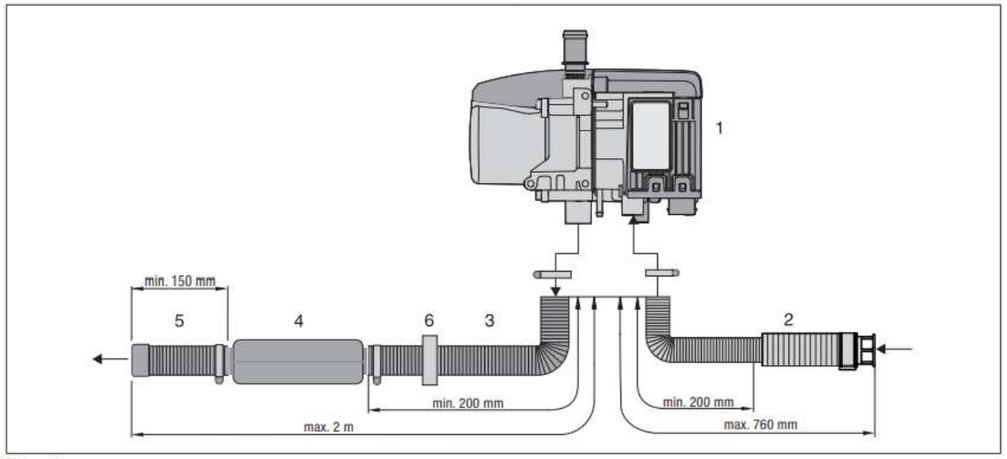
RD - red：红色 | GR - grey：灰色 | BK - black：黑色

BU - blue：蓝色 | YE - yellow：黄色 | GN - green：绿色

WH - white：白色 | VT - violet：紫色 | BN - brown：棕色

双色代码按上述代码组合读取，例如 BU/RD = 蓝 / 红。

Combustion Inlet and Exhaust



Picture 18

1 Heater
2 Combustion air intake silencer
3 Flexible exhaust pipe
4 Exhaust silencer
5 Exhaust pipe end with end sleeve
6 Spacer ring

Combustion Air

The DH15/DH30 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 marine applications or instances in RVs where the furnace is installed inside a locker or cupboard, it is acceptable to install the combustion air inlet inside the engine room or locker.

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 DH15/DH30 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.

燃烧进气与排气

图 18：部件编号及尺寸

1：加热炉　　2：燃烧进气消音器

3：柔性排气管　　4：排气消音器

5：带端套的排气管末端　　6：间隔环

min. = 最小；max. = 最大。

图示排气末端段最短 150 mm；加热炉至消音器侧管段最短 200 mm；排气总长最长 2 m。

图示燃烧进气侧最短 200 mm、最长 760 mm。

燃烧空气

DH15/DH30 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。

船用安装，或房车中加热炉安装在储物舱 / 柜内时，可以将燃烧进气口设置在机舱或储物舱内。

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 DH15/DH30 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。

译注：本页引用图示尺寸与其他章节的套件长度 / 降噪建议分别按原文保留。

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.

Exhaust Cowl



The exhaust cowl kit is designed to provide a 2nd layer of protection to prevent exhaust entering the installation space should an exhaust leak occur and to prevent items in the installation space (like electrical cables) from contacting the hot exhaust.

There are 2 ways to install the exhaust cowl, for RVs with a flat floor (on the underside) use Option 1 with the clamp under the floor - this is the preferred method. For RVs like motorhomes with ribbed metal floors getting the clamp to sit flat on the underside of the floor can be difficult, in this case use Option 2 with the clamp above the floor.

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。

排气防护罩

Exhaust Cowl：排气防护罩

Cowl Clamp：防护罩卡箍

Silicon Seal：硅胶密封圈

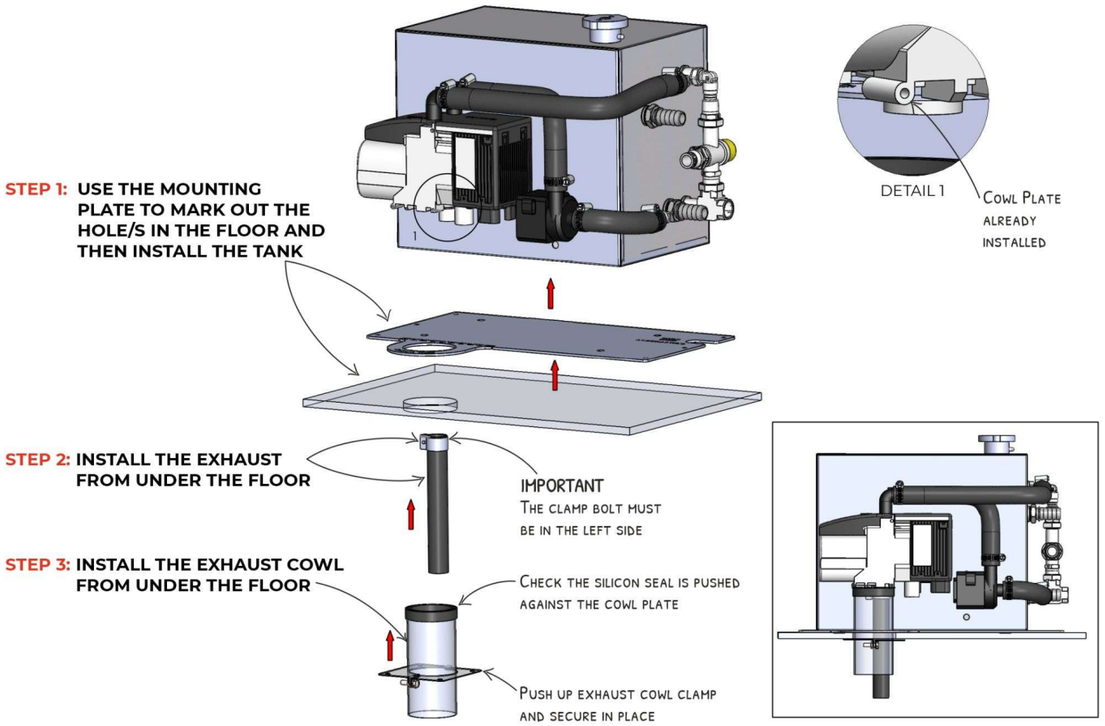
排气防护罩套件提供第二层保护：在排气泄漏时防止废气进入安装空间，并防止该空间内的物品（例如电缆）接触高温排气管。

防护罩有两种安装方式。房车地板底面平整时，采用方案 1，将卡箍安装在地板下方，这是优先推荐的方法。

自行式房车等车辆采用带加强筋的金属地板时，卡箍可能难以平贴地板底面，此时采用方案 2，将卡箍安装在地板上方。

Option 1: Flat Under Floor (Clamp under floor)

1. Thread the exhaust pipe through the hole in the floor and clamp the exhaust**. Note: the bolt on the clamp must be on the left side of the exhaust.**
2. Mount the silicon seal on the cowl and then slide it up over the exhaust pipe and push onto the cowl plate, install the clamp under the floor ensuring there is pressure pushing the cowl up onto the base of the furnace**.**



Option 2: Ribbed Under Floor (Clamp above floor)

This process is easier with 2 people**.**

1. Snap off the exhaust cowl guide from the mounting plate (to make space for the clamp to go above the floor)**.**
2. Place the silicon seal and clamp above the hole in the floor and thread the exhaust pipe through it, clamp the exhaust**. Note: the bolt on the clamp must be on the left side of the exhaust.**
3. Slide the cowl up over the exhaust and push up through the floor, through the clamp, mount the silicon seal on the cowl.
4. Push up and tighten the clamp**.**

排气防护罩安装

方案 1：地板底面平整（卡箍位于地板下方）

1. 将排气管穿过地板开孔，并夹紧排气管。注意：卡箍螺栓必须位于排气管左侧。

2. 将硅胶密封圈装到防护罩上，再从排气管外侧向上套入，推紧至防护罩板。在地板下方安装卡箍，使防护罩受向上的压力，紧贴加热炉底部。

上图步骤与标注

步骤 1：用安装板在地板上标出开孔位置，然后安装水箱。

步骤 2：从地板下方安装排气管。

步骤 3：从地板下方安装排气防护罩。

Detail 1：详图 1。

Cowl Plate Already Installed：防护罩板已预装。

Important! The clamp must have its bolt left side：重要！卡箍螺栓必须在左侧。

Cowl Top Silicon Seal is Pushed Against the Cowl Plate：将防护罩顶部硅胶密封圈压紧在防护罩板上。

Push Up Exhaust Cowl Clamp and Secure in Place：向上推紧防护罩卡箍并固定。

方案 2：地板底部带加强筋（卡箍位于地板上方）

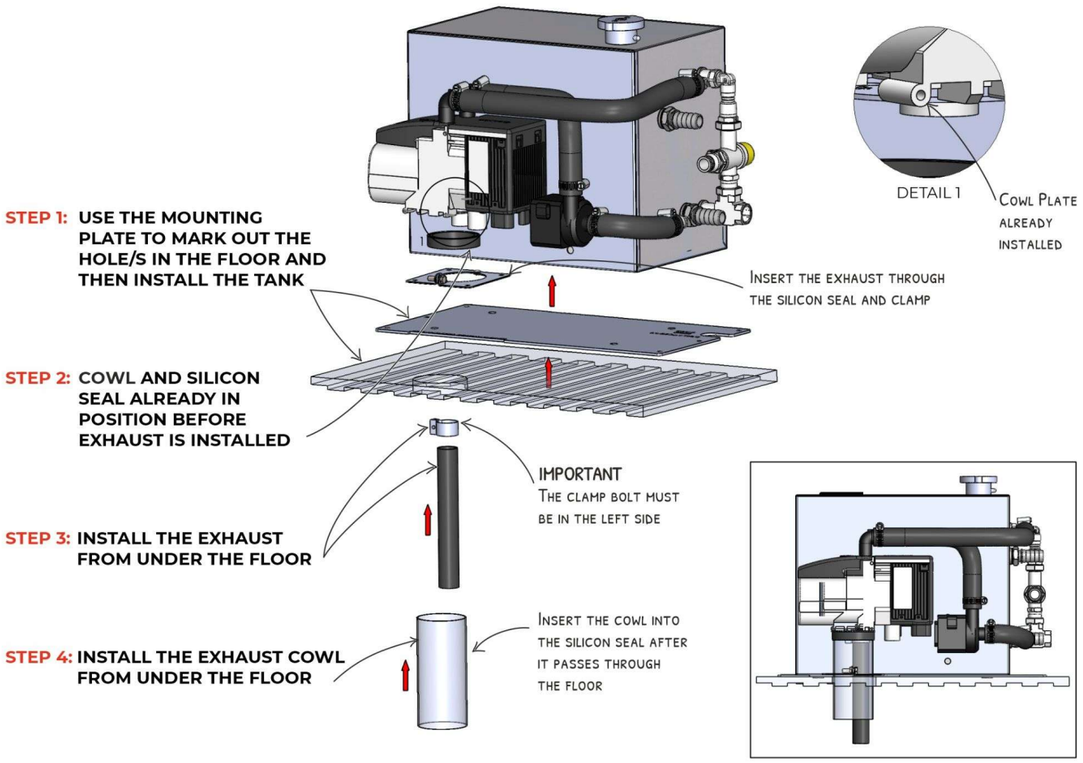
两人配合操作更容易。

1. 从安装板上折下排气防护罩导向件，为地板上方的卡箍腾出空间。

2. 将硅胶密封圈和卡箍放在地板开孔上方，将排气管穿过并夹紧。注意：卡箍螺栓必须位于排气管左侧。

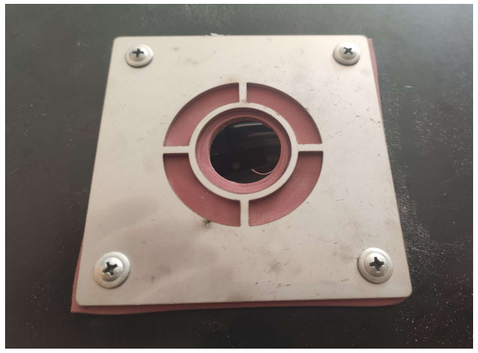
3. 将防护罩从排气管外侧向上套入，穿过地板和卡箍，再将硅胶密封圈装到防护罩上。

4. 向上推紧并锁紧卡箍。

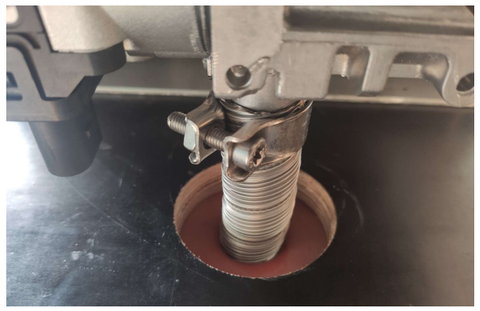


Optional Silicon Plate Installation

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

排气防护罩安装（续）

上图：方案 2 的步骤及标注

步骤 1：用安装板在地板上标出开孔位置，然后安装水箱。

步骤 2：安装排气管前，防护罩与硅胶密封圈已就位。

步骤 3：从地板下方安装排气管。

步骤 4：从地板下方安装排气防护罩。

Detail 1：详图 1。

Cowl Plate Already Installed：防护罩板已预装。

Insert the Exhaust Through the Silicon Seal and Clamp：将排气管穿过硅胶密封圈和卡箍。

Important! The clamp must have its bolt left side：重要！卡箍螺栓必须位于左侧。

Insert the Cowl into the Silicon Seal After it Passes Through the Floor：防护罩穿过地板后，将其插入硅胶密封圈。

可选硅胶密封板安装

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。

下方照片说明

左：从下方观察排气管地板密封板。

右：从上方观察排气管地板密封板。

Marine Exhaust

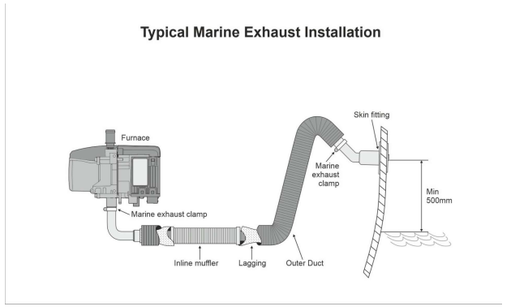
Always use high-quality marine stainless steel exhaust systems and clamps to ensure no exhaust gasses are vented inside the boat.

The total maximum length of the marine exhaust is 2m. Always install the exhaust with a gooseneck on the inside of a hull fitting to prevent water washing back into the exhaust system.

Note: The exhaust system reaches temperatures of up to 300°C. Always lag the exhaust and ensure that the exhaust is not in contact with any materials that could be damaged or set alight by this heat.

Installing the hull/deck fitting
The position of the exhaust hull fitting will depend on several factors, including where you have located the DH15/DH30, whether your vessel is a sailboat or a motorboat, and the suitable surfaces available.

On a sailboat, the preferred location is on the transom or cabin wall, as this is normally the area least likely to be affected by seawater when sailing. On a motorboat, the transom or side of the hull are suitable locations.



The hull fitting should be positioned as high as possible and a minimum of 300mm above the waterline to avoid water ingress.

To avoid potential safety issues, the exhaust system must be installed according to the following instructions:

- Under no circumstances connect the heater exhaust to an engine exhaust or any other exhaust system.
- The exhaust outlet must vent directly to the atmosphere.
- Adequate clearance must be maintained around the exhaust system to prevent interference with important functional parts of the boat, such as steering or throttle cables.
- Route the flexible exhaust giving clearance and consideration to heat sensitive components such as fuel lines and electrical cables.
- Ensure the support brackets are used to secure the exhaust in order to avoid damage from vibration.
- Position the hull fitting so that other inlets (hatches, windows) cannot draw in exhaust fumes.
- Ensure the hull/deck fitting is positioned to allow fumes to exit freely so as not to affect nearby surfaces, such as fenders, ropes or moldings.
- The exhaust must not be routed through the living area.

船用排气系统

必须使用优质船用不锈钢排气系统和卡箍，确保废气不会排入船内。

船用排气总长最大为 2 m。应在船体穿舱接头内侧设置鹅颈弯，防止水倒灌进入排气系统。

注意：排气系统温度可达 300°C。必须包覆隔热材料，并确保排气管不接触可能受热损坏或被引燃的材料。

船体 / 甲板穿舱接头安装

排气穿舱接头的位置取决于 DH15/DH30 安装位置、船舶为帆船还是机动船，以及可用安装表面等因素。

帆船优先选择艉板或舱壁，因为这些位置航行时通常较少受到海水影响。机动船可选择艉板或船体侧面。

穿舱接头应尽可能高，且至少高于水线 300 mm，防止进水。

安全安装要求

- 在任何情况下，都不得将加热炉排气管接入发动机排气或其他排气系统。
- 排气出口必须直接通向大气。
- 排气系统周围必须保持足够间隙，不得影响转向拉索、油门拉索等重要船舶部件。
- 布置柔性排气管时，应与燃油管、电缆等热敏部件保持足够间距。
- 使用支架固定排气管，防止振动造成损坏。
- 穿舱接头位置应避免其他开口（舱口、窗户）吸入废气。
- 穿舱 / 甲板接头应让废气自由排出，不影响附近的碰垫、绳索或装饰件等。
- 排气管不得穿过生活区域。

图示

Typical Marine Exhaust Installation：典型船用排气安装。

Furnace：加热炉；Marine exhaust clamp：船用排气卡箍；Inline muffler：管路消音器；Lagging：隔热包覆层；Outer Duct：外护管；Skin fitting：船体穿舱接头；Min 500mm：至少 500 mm。

译注：正文写至少高于水线 300 mm，而图示标注至少 500 mm。两处按原文保留，请向 Dieselheat 确认。

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 Eberspächer furnace will lock out after approximately **8 failed start attempts.** Always double-check the fuel line, pump orientation, and fuel source before starting the furnace. To reset a locked-out furnace, an Easy Start Pro controller or Dieselheat Thermostat (V4) is required.

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.

Note: The V4 Hydronic Thermostat will not start the air heating fan until the system reaches 45 degrees when the furnace is switched on.

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：Eberspächer 加热炉在约 8 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。解除锁定需要 EasyStart Pro 控制器或 Dieselheat 温控器（V4）。

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。

注意：加热炉开启时，V4 水暖温控器会等系统达到 45°C 后才启动暖风风机。

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 inserted into the Eberspacher fuse box. (refer photo in the electrical section) • Check the 10A 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 alert icon appears on the Dieselheat thermostat.	This is generally caused by a fault, use the fault codes to find and rectify the situation. • Retrieve the fault codes by holding the heat and fan buttons on the Dieselheat thermostat for 4 seconds. • Use the video on how to use the Dieselheat thermostat referenced in the commissioning section for more help on retrieving and deleting fault codes. • Use the QR code below to access the furnace fault code listing and resolve the fault.

调试故障排查

故障：Dieselheat 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插入 Eberspächer 保险丝盒，参见电气章节照片。

• 检查温控器的 10 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。

故障：首次开启时，温控器显示 NO FURNACE

NO FURNACE 表示温控器无法通过控制器电缆与加热炉通信。

• 检查 Eberspächer CAN 连接器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。

• 检查连接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，确认加热炉有电。该插头位于加热炉底部，带较粗的棕线和红线。

故障：首次开启时，加热炉无动作，温控器出现报警图标

通常由故障引起，应读取故障码进行排查和修复。

• 同时按住 Dieselheat 温控器上的加热和风机按钮 4 秒，读取故障码。

• 关于读取及清除故障码的更多帮助，请观看调试章节所引用的温控器使用视频。

• 扫描左侧二维码，查看加热炉故障码列表并排除故障。

表格标题

Problem：故障现象

Things to Check：检查项目

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 multiple times and is now 'dead'.	● The furnace has locked out due to excessive start attempts and will need to be unlocked. Retrieve and clear the fault codes to remove the lock.
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.

调试故障排查（续）

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。读取并清除故障码以解除锁定。

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。

• 按上述说明检查燃油供应。

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。

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