PRODUCT MANUAL
5000W / 7000W

CAB HEATING & ENGINE COOLANT PREHEATING

WeVolt Air & Water Parking Heater

SKU: WTDH-12V-5KW



5 kW unit shown. The 7 kW version has a different housing and dimensions.

5 / 7 kW	Air + coolant	12V / 24V
HEATING MODELS	**DUAL FUNCTION**	**ELECTRICAL VARIANTS**
Separate specifications	Cab heat + engine preheat	5 kW: 12V or 24V; 7 kW: 24V

Installation, operation & service

Read the safety instructions before installation or use. Match the heater and pump to the specified supply voltage.

START HERE

About this manual

Find the instructions for your model and installation.

Contents

SECTION	TOPIC	PAGE
01	Safety instructions	03
02	Specifications & model dimensions	04-06
03	System overview & mounting	07-08
04	Air, electrical & fuel installation	09-11
05	Coolant heating & controls	12-14
06	Fault codes & maintenance	15-16
07	Service terms & installation record	17

Purpose & applications

This manual explains installation, operation and maintenance of the WeVolt air and water parking heater. Installers must fit the heater responsibly, take the required precautions, and explain correct use to the operator.

The heater uses an independent electrical supply and fuel supply. It can heat cab air, assist engine coolant preheating and support glass defrosting in vehicles, construction equipment and agricultural machinery, subject to the required heating capacity.

Other uses, including RV hot-water applications, require a full understanding of the heater, its connections and the relevant operating precautions.

> **CHECK THE SUPPLIED VERSION**
>
> Confirm the heater voltage, pump voltage, controller and installation kit before connecting power. The 5 kW and 7 kW parameters are listed separately on page 04.

Reorganized from the supplied heater instructions. Illustrations are retained from the source.

READ BEFORE INSTALLATION OR USE

Safety instructions

Retain these instructions and explain them to every operator.

> **EXHAUST & OCCUPANCY WARNING**
>
> Discharge exhaust completely outside the vehicle and prevent it entering through vents, windows or gaps. **Do not sleep in the vehicle while the heater is operating.** Keep fresh air flowing by leaving a gap in the windows.

Installation & fuel safety

- **Protect people and equipment from heat.** Provide protection around hot heater surfaces, ducts and exhaust piping.
- **Fuel tank and lines must be outside the cab.** Keep the heater fuel supply separate from the vehicle fuel line. Turn the heater off before refueling.
- **Keep exhaust piping away from flammable objects** and components that are sensitive to heat. Its surface can cause burns.
- **Use the specified installation parts.** Do not use spare parts from other manufacturers.

Permitted locations & air supply

- Do not use the heater in unventilated rooms, garages or spaces used for prolonged room heating. Do not use it where flammable gas, combustible dust or other explosive materials are present.
- Draw combustion air from outdoors. Do not draw it from the cab or an enclosed indoor space, and do not obstruct the intake.
- Do not direct hot air into a container. Keep the heater housing and air outlet uncovered; do not let the intake draw in exhaust gas.
- Use the heater only in its specified applications and follow the installation instructions. The company is not responsible for consequences of incorrect installation or use.

Source: introduction and safety instructions, original numbered pages 1-2.

PRODUCT SPECIFICATIONS

Compare the two models

Heating output, electrical requirements and fuel consumption.

PARAMETER	5000W / 5 kW	7000W / 7 kW
Heating output / model rating	5000 W	7000 W
Heating medium	Air	Air
Diesel fuel consumption	0.15-0.52 L/h	0.23-0.73 L/h
Electrical power at 24V	30-50 W	50-72 W
Coolant pump power at 12V	18 W	Not specified
Coolant pump power at 24V	24 W	50 W
Supply voltage variants	12V / 24V	24V
Operating range, 12V variant	9-18 V	Not specified
Operating range, 24V variant	18-36 V	18-36 V
Length shown in dimension drawing	391 mm	441 mm

Environmental conditions affect performance. These specifications are reference values. Dimensions are shown separately for each model on pages 05-06.

SEPARATE HEATER AND PUMP LOADS

The electrical power row is the heater rating at 24V. Pump power is listed separately. A heater power rating at 12V is not specified. The 7 kW model is specified for a 24V supply.

Dual heating function: the warm-air heater can also transfer heat to engine coolant when the liquid circuit and circulation pump are installed. See page 12.

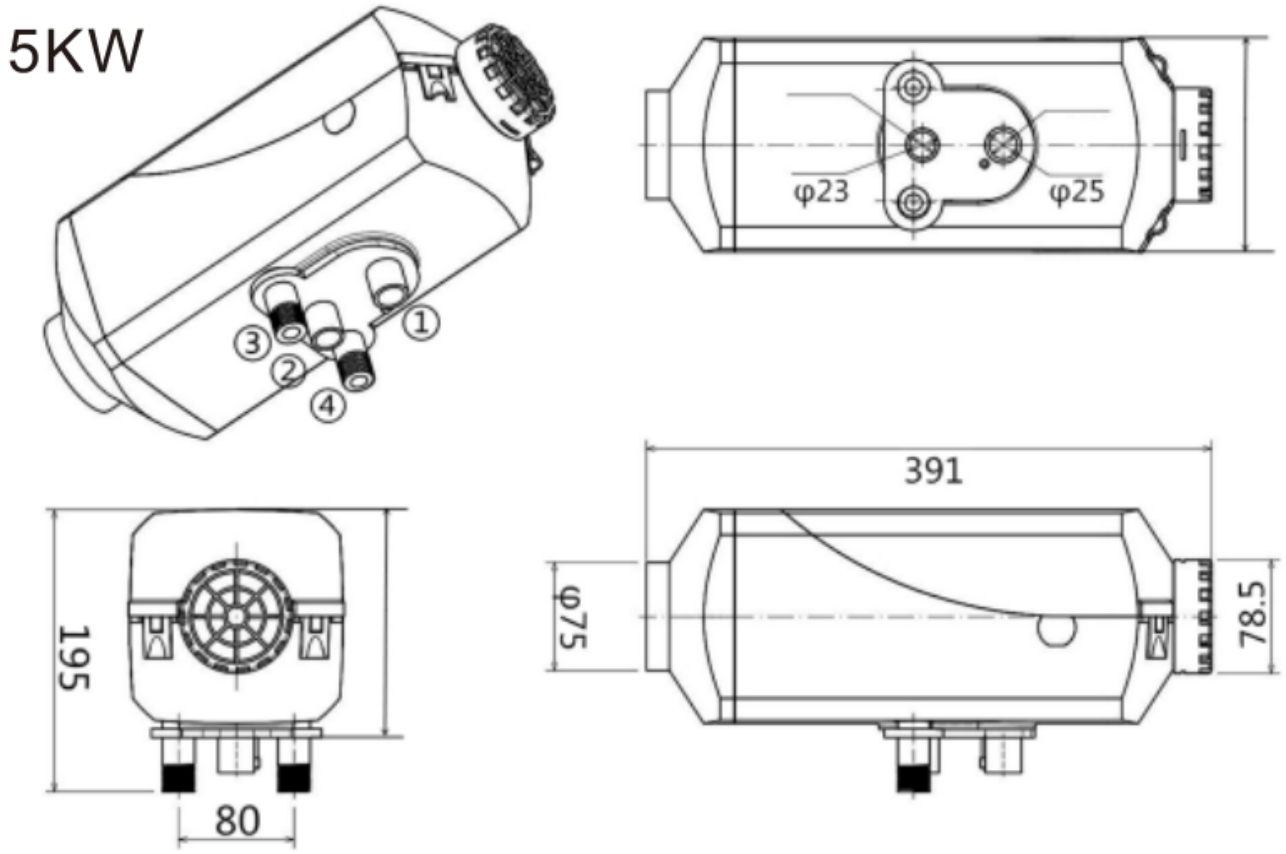
Source: main parameter table and model drawings, original numbered page 5.

MODEL DIMENSIONS / 5000W

5 kW dimensions & ports

Use the original drawing for the supplied model. Dimensions in mm.

5000W / 5 kW — **LENGTH 391 mm**



Connection legend

MARK	CONNECTION
1	Outdoor combustion-air intake
2	Exhaust-gas outlet
3 / 4	Coolant ports, with no assigned inlet or outlet. Fit the supplied water-pipe joints correctly.

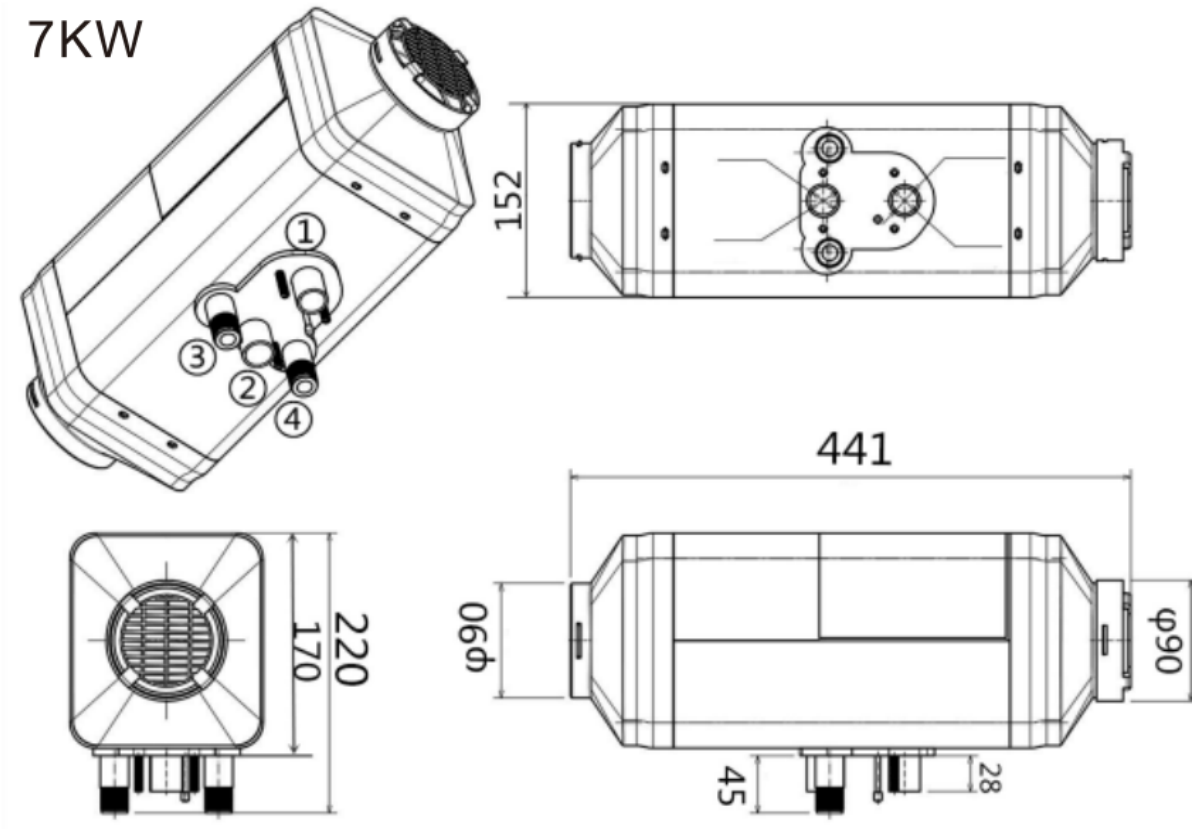
Source drawing preserved without changes to geometry. Original numbered page 5.

MODEL DIMENSIONS / 7000W

7 kW dimensions & ports

Use the original drawing for the supplied model. Dimensions in mm.

7000W / 7 kW — LENGTH 441 mm



Connection legend

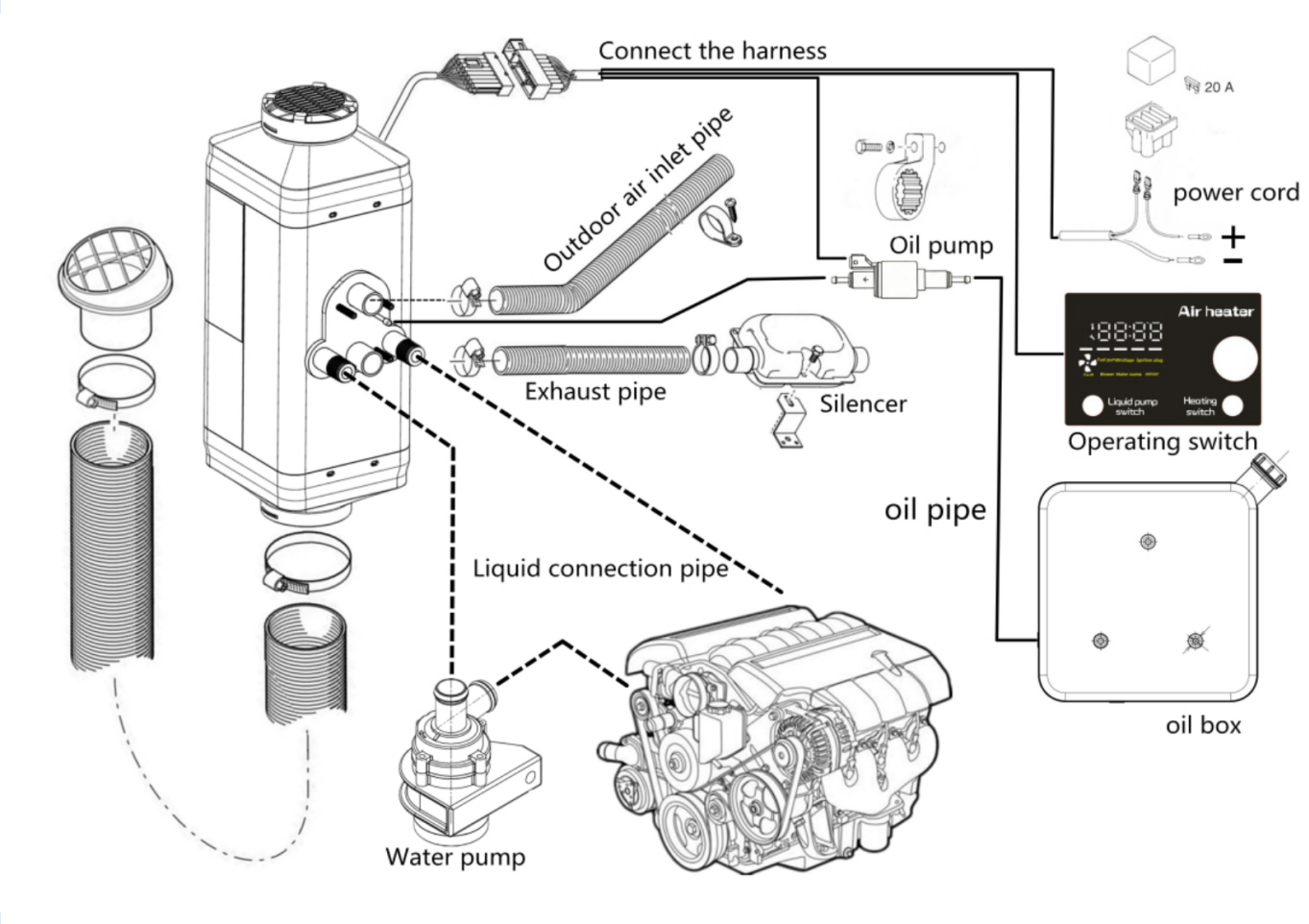
MARK	CONNECTION
1	Outdoor combustion-air intake
2	Exhaust-gas outlet
3 / 4	Coolant ports, with no assigned inlet or outlet. Fit the supplied water-pipe joints correctly.

Source drawing preserved without changes to geometry. Original numbered page 5.

SYSTEM INSTALLATION OVERVIEW

Connections at a glance

Separate the air, exhaust, fuel, coolant and electrical circuits.



Installation illustration. Component drawings are schematic; confirm the supplied kit and connections before installation.

Main connection groups

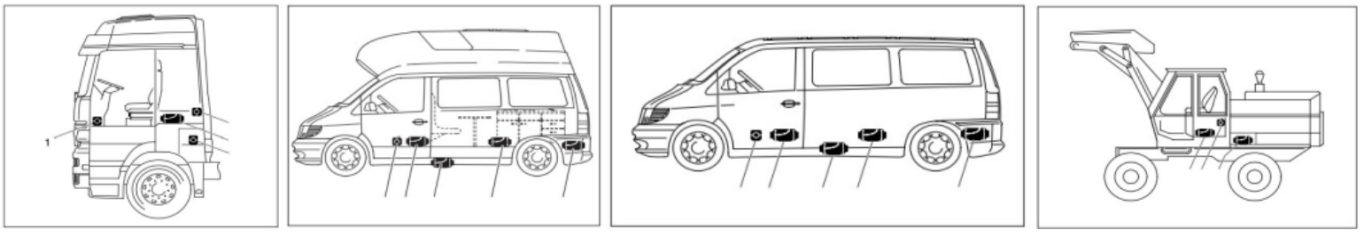
CIRCUIT	COMPONENTS SHOWN
Air & exhaust	Warm-air duct and outlet; outdoor intake; exhaust pipe and silencer
Fuel & coolant	Fuel tank and pump; coolant hoses; circulation pump and engine
Electrical	Power cable, harness, controller and 20 A fuse shown in the installation schematic

Source: installation diagram, original numbered page 3. The diagram is illustrative.

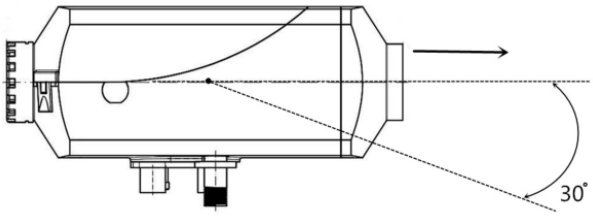
INSTALLATION / LOCATION & MOUNTING

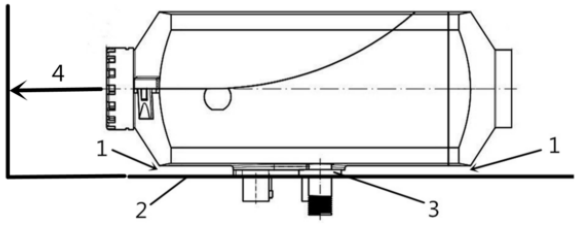
Mount the heater correctly

Keep the mounting area clear and follow the orientation limits.



Illustrative installation locations only; the drawings do not establish vehicle-specific mounting positions.





ORIENTATION & CLEARANCE

Install horizontally or tilted by no more than **30 degrees**, as shown. Keep at least **10 cm** between the air inlet and nearby objects.

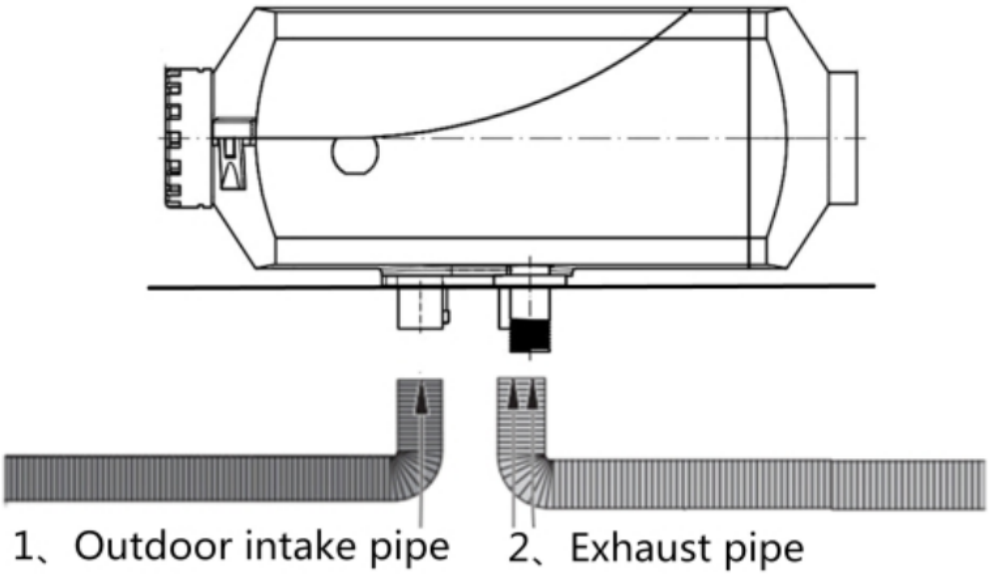
Mounting requirements

- Do not seal or obstruct the space between the heater and the underside of the vehicle.
- Use a smooth mounting surface. Fit the flange seals and fastening screws shown in the drawing.
- Cut floor openings to suit the heater pipes. Avoid gaps between the installation and the outside environment.
- Do not cover the heater housing. Prevent the inlet from drawing in exhaust gas.

Source: installation location, angle and fixing, original numbered page 6.

Route intake & exhaust outdoors

Keep exhaust gas out of the cab and away from the air intake.



Pipe installation

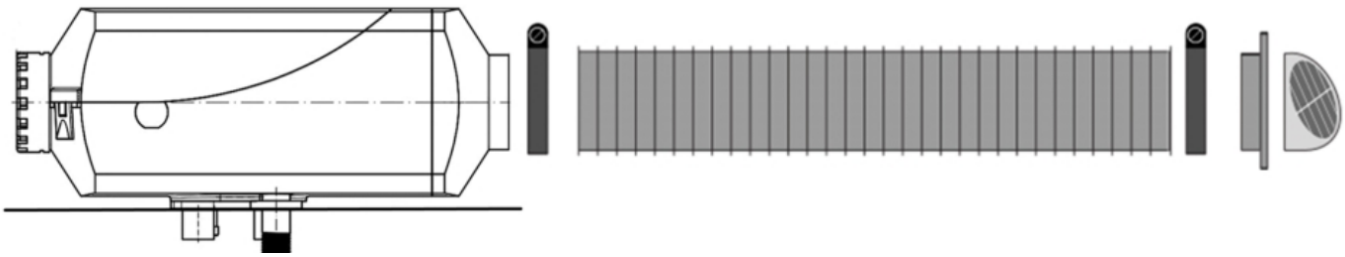
- **Outdoor air intake:** clamp the black intake hose to the heater intake and secure the other end to the vehicle body. Keep it clear, clean and protected from rain and snow.
- **Exhaust:** clamp the metal hose to the exhaust outlet and secure the other end to the vehicle body so it cannot detach.
- Do not point intake or exhaust openings in the direction of travel. Direct them rearward and downward.
- Keep the exhaust pipe well away from the intake pipe. Keep hot exhaust surfaces away from people, flammable items and heat-sensitive parts.

> **EXHAUST HAZARD**
>
> Exhaust gas is harmful. It must discharge outside and must not re-enter the cab through any opening.

Source: outdoor intake and exhaust installation, original numbered page 7.

Warm air & electrical installation

Fit the warm-air outlet and maintain an independent power supply.



Warm-air outlet

- Fit the air hose and outlet guide as shown. Do not aim hot outlet air directly at people or objects.
- Keep the housing and outlet duct uncovered. The outlet is hot; do not allow objects to touch it.

Electrical harness

- Connect the harness plugs in sequence. If the harness has no circulation-pump plug, install the separate pump-control switch for the supplied configuration.
- Protect the wiring insulation from abrasion, tension, moisture and heat. If extending the harness, use the same wire size.
- Do not connect the heater power cable to the vehicle ignition/start switch. The heater requires an independent electrical supply.

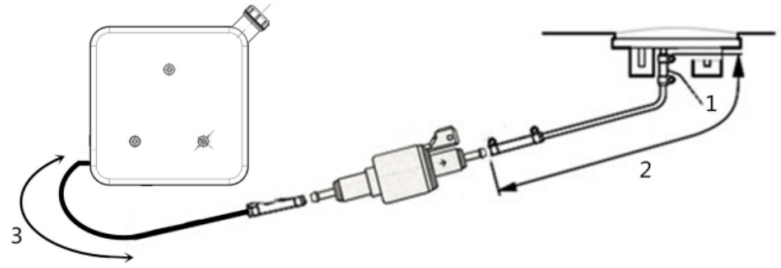
> **NORMAL SHUTDOWN IS REQUIRED**
>
> Use the heater switch to turn the heater off and allow its normal cooling cycle to finish. **Do not stop an operating heater by disconnecting power.** The source warns that this shortens heater life.

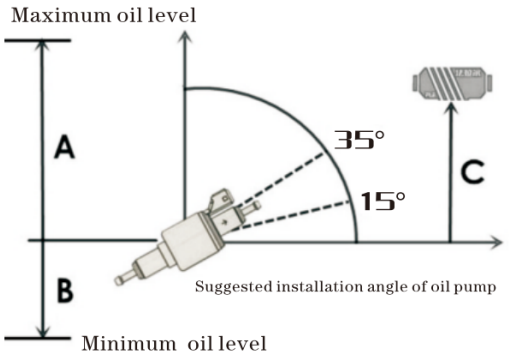
Source: warm-air conduit and wiring-harness installation, original numbered page 8.

INSTALLATION / DIESEL FUEL SUPPLY

Fuel line & pump installation

Observe the pump angle, routing distances and height limits.





Recommended fuel-pump installation angle: **15-35 degrees**.

REFERENCE	LIMIT
Pump to heater	Less than 2.5 m
Tank to pump	Less than 3 m
A - pump to highest fuel level	Vertical height less than 1.8 m
B - pump to lowest fuel level	Vertical height less than 1 m
C - pump to heater	Vertical height less than 1.6 m

Fuel-line requirements

- Cut the supplied black connector hose to length. Join the white fuel pipe correctly and tighten the clamps.
- Avoid twisting, heat, tension and friction. Check the fuel line for leaks during use.
- If an unusual smell develops in the cab, turn the heater off and inspect it. Use diesel suited to seasonal temperatures from a reputable fuel supplier.

Source: fuel-pipeline connections, original numbered page 9. All distance limits remain unchanged.

Heat the cab & preheat coolant

The circulation pump enables the liquid-heating function.

Connect the coolant circuit

Connect the circulation-pump inlet to the engine coolant outlet. Route coolant through the heater and back to the engine through the vehicle heating circuit. Connect in parallel with the vehicle heater circuit and use the small coolant circulation loop.

Operating sequence

01 **Start the heater**

Run the heater for **3-5 minutes** before switching on the coolant circulation pump.

02 **Turn on the pump**

The pump transfers heat to the engine while air heating continues. Use the highest heat setting to reduce preheating time.

03 **Monitor coolant temperature**

Watch the vehicle coolant-temperature gauge and avoid overheating. At the desired temperature, reduce the heat setting to maintain it or turn the pump off.

04 **Continue air heating as needed**

Air heating remains available with the pump off or without using coolant preheating.

Engine-start reference in the source: 0-30°C coolant. No fixed preheating time is stated; vehicle type, ambient conditions and circulation affect it.

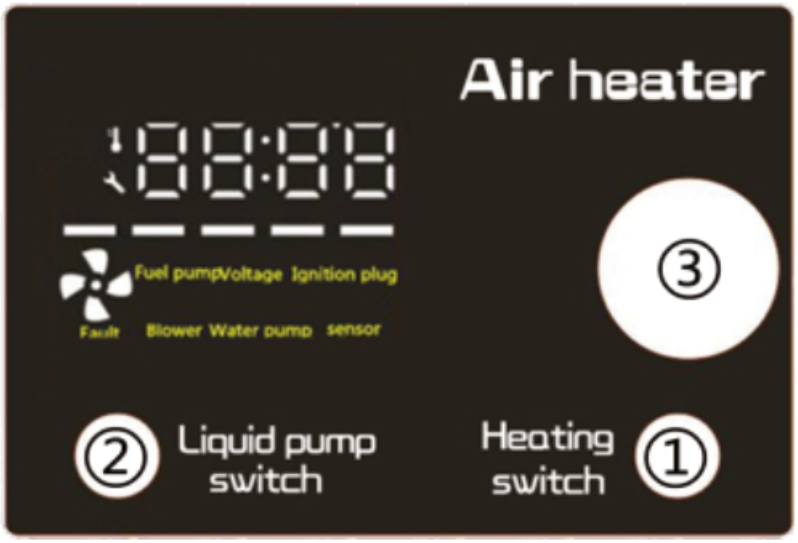
> **PUMP MOUNTING & CIRCULATION**
>
> Keep coolant flow clear and remove air; restricted flow or bypassing the heater can cause slow or absent heating. Mount the pump below the vehicle coolant tank. **The source mentions 20 cm but the height wording is unclear; confirm the mounting distance with WeVolt before installation.**

Source: introduction to liquid heating, original numbered page 4.

OPERATION / MAIN CONTROLLER

Use the control panel

Button numbers correspond to the original panel illustration.



CONTROL	ACTION
1 - heater switch	Press and hold for **3 seconds** to turn the heater on or off.
2 - liquid-pump switch	Press and hold for **3 seconds** to start coolant circulation. The water-pump indicator lights. Press and hold for 3 seconds again to stop the pump. Start the pump after the heater has run for 3-5 minutes.
3 - heat-setting knob	After the heater starts, rotate the knob to change the heat setting. Press the knob to view operating information, including voltage and rotational speed.

ALLOW THE HEATER TO COOL DOWN

Turn the heater off using its switch. Keep electrical power connected throughout the normal shutdown and cooling cycle.

The 7 kW model and some special configurations use a separate coolant-pump switch. See page 14 for the source connection assignments.

Source: switch operation, original numbered page 10; pump start delay from page 4.

Separate circulation-pump switch

For the 7 kW model and certain special configurations.



Separate coolant-pump switch. Match the switch and harness to the supplied configuration.

Switch wire assignments

WIRE	CONNECTION
Red	Positive terminal of the electrical supply
Black	Negative terminal of the coolant circulation pump
Brown	Positive terminal of the coolant circulation pump

VERIFY THE SUPPLIED CIRCUIT BEFORE WIRING

The original manual provides these three wire assignments but does not show a complete circuit for this switch. Confirm the actual harness and all remaining connections with WeVolt before applying power.

If the main harness has no circulation-pump plug, install the separate pump-control switch. Use the correct pump voltage for your model.

Source: separate circulation-pump switch, original numbered page 10; harness note from page 8.

TROUBLESHOOTING / CONTROLLER DISPLAY

Fault-code reference

Use the displayed code when contacting the installer or service team.

CODE	DESCRIPTION
E001	Control-box or ignition-plug fault
E002-E004	Blower fault, control box not installed correctly, or connector not fully plugged in
E005-E006	Fuel-pump fault or damaged fuel-pump wiring harness
E007-E008	Overvoltage or undervoltage
E009	Air-inlet temperature or ambient temperature too high
E010-E011	Air-inlet sensor fault
E012	Heater block temperature too high; heater air circulation is restricted
E013-E014	Heater-block temperature-sensor fault
E015-E016	Coolant circulation-pump short circuit or open circuit
E018	Poor contact in the switch wiring
E019	Ignition failure; smoke or fuel issue, or blocked heater combustion chamber

DO NOT REPAIR THE HEATER WHILE IT IS OPERATING

If a fault prevents operation, contact the manufacturer or return to the installation/service location. Do not disassemble or repair an operating heater.

Source: fault-code table, original numbered page 11. The source does not list E017.

MAINTENANCE / INSPECTION & SERVICE

Maintain the heater

Inspect the system before the heating season and keep lines clean.

STOP BEFORE SERVICING

The original instructions prohibit disassembly or repair while the heater is operating. Use the normal shutdown procedure before any inspection or service.

Routine maintenance

01 Before the heating season

Check the fuel circuit, electrical circuit and related connections. Verify that the heater operates correctly.

02 Fuel freshness

In the second year of use, add fresh fuel to help avoid carbon deposits. Use diesel suited to the seasonal temperature.

03 Clean the lines regularly

Clean the heater lines and keep the air, exhaust, fuel and coolant paths in serviceable condition.

04 When a malfunction prevents operation

Contact the manufacturer for after-sales service or return to the original installation location for maintenance.

05 Improper operation

Malfunctions caused by improper operation are not repaired by the company under the stated service terms.

Keep the installation record

Record the model, installation details and maintenance date on page 17. Keep this manual available for the operator and service technician.

Source: fault diagnosis and maintenance, original numbered page 12.

SERVICE / INSTALLATION RECORD

Service terms & installation record

Retain the completed record with the heater documentation.

Service terms in the supplied instructions

- The company is not responsible for consequences of incorrect installation or improper use.
- The supplied instructions state: **after-sales maintenance until April 1 of the following year (one season).** Confirm the applicable service period for your product.
- The company reserves the right to change the product. Product changes may not be recorded in this manual.

Owner & installation details

OWNER / USER NAME	CONTACT PHONE
VEHICLE LICENSE PLATE	HEATER TYPE
MODEL	INSTALLATION POSITION
INSTALLATION SHOP	INSTALLATION DATE

MAINTENANCE DATE / RECORD

Keep this record for installation and maintenance enquiries.

Source: original warranty record and service wording, original numbered page 13.