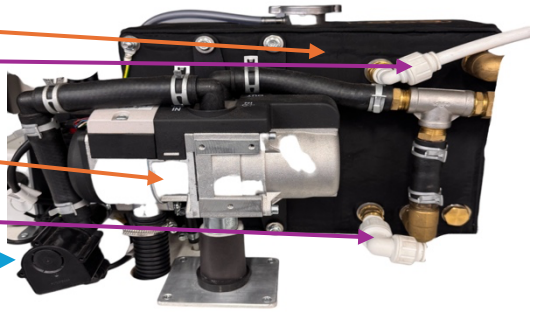
Autoterm Flow 5 Diesel Hydronic Water Heater – RV Installation Guide

For caravans, campervans, camper trailers, motorhomes, and tiny houses. Applies to Autoterm Flow 5 (12 V diesel-fired hydronic water heater).

⚠️ Professional installation is strongly recommended. Follow ADR regulations and Australian standards for diesel fuel systems and heating appliances in mobile vehicles.Always follow the manufacturer's safety and installation manuals. This guide is a general outline only and is not a substitute for trained installation. Failure to follow instructions will void warranty.Warranty work requiring dismantling of any part of the van for heater access is not covered by Everything Caravans.

Components Diagram Description

- Tank
- Fresh water connection
- Flow 5 Unit (Heater/Furnace)
- Hot Water Out
- Coolant pump



Additional Items Required

- Screws for mounting hot water tank and control panel
- Silicone sealant
- High-temp silicone sealant
- Exhaust pipe sealant
- Fuel pickup kits (if not using Autoterm standpipe)
- Cold and hot water pipe — first 100 mm from tank must be John Guest Watermark Type
- Coolant: glycol mix (30–50% glycol to water) – Green

- Hot water tempering valve (mandatory, not supplied)

1. Site Selection

- Heater and tank must be mounted internally.
- Maintain minimum clearance: 100mm × 100mm × 200mm (side x side x top)
- Ensure access to:
  - Tank filler cap after installation
  - Heater and all loom components, including **fuses** and loom connections
- Inspect underside for correct placement of exhaust, air intake, and fuel lines.
- Allow space for cold and hot water plumbing.
- Tank, heater, and hot water pipes generate heat — avoid mounting near heat-sensitive components (e.g. batteries, chargers, inverters).

2. Mounting the Water Heater and Tank

- Mount heater horizontally, air intake and exhaust ports down (as supplied fitted to Tank).
- For alternative mounting, contact Everything Caravans.
- Drill holes for:
  - Exhaust pipe — 40 mm (supplied rubber fitting) or 44 mm (optional stainless fitting – illustrated)
  - Combustion air intake — 40 mm
  - Diesel supply pipe — 5 mm
  - Cold/hot water as required
  - Pump control wire — 8 mm



- Fit exhaust pipe to heater using exhaust sealant.
- Exhaust must run level or downhill from heater; end facing rearwards.

- Avoid tight bends or restrictions in exhaust.
- Air intake must run downhill from heater; end facing same direction as exhaust.
- Screw down heater unit.
- Seal air intake, fuel line, and control wire with silicone.
- Seal exhaust with RTV high-temp silicone.

3. Diesel Fuel Supply Line

Options:

1 Install Autoterm standpipe into vehicle's diesel tank.

2 Connect to vehicle return line (requires vehicle-specific fittings).

3 Use auxiliary diesel tank.

- Cut fuel pipe cleanly; fully insert into rubber connectors to prevent air leaks and eliminate air build up in joints.
- Route hose away from exhaust, sharp edges, moving suspension, or abrasion points.
- Mount fuel pump within 1 m of fuel tank; pump must be horizontal for quiet operation (can be run temporarily in vertical to purge air).
- Route pump control wire safely away from hazards.
- Insert pump terminals into connector housing — polarity does not matter.
- Optional: Fit small-volume fuel filter (Autoterm part no. 3764).

4. Electrical Wiring

- Use supplied Autoterm harness:
  - 12 V+ direct to battery (not via other control units or fuse blocks).
  - Negative direct to battery or via shunt.
  - Connect control cable to heater and controller as per diagram.

- Connect coolant pump to loom.
- “Relay” cable is unused unless fitting fan matrix unit.
- Do not cut or extend wires unless using genuine Autoterm extensions.
  - Fuel pump
  - Controller
- Power cable extension sizing guide if required:
  - Up to 8 m: 6 mm^2
    - Voltage drop in use must be less than 1 volt, preferably less then 0.5 volt
    - Startup current: 10–20 A; running current: 1–3 A.

5. Coolant Fill and Bleed

- Fill ECP tank with Green glycol/distilled water mix (30–50% glycol).
- Fill to 10 mm from tank top (40 mm from filler top).
- Fit overflow tube from filler to vehicle exterior.
- Open all valves and bleed points, if used
- Activate “vent mode” or coolant pump via digital panel; run heater if using other controllers.
- Top up coolant until all air is purged.
- Close valves and bleed points.
- Heater must not be run without glycol.

6. Fresh Water Connection

- Fit cold and hot water supply to ECP coolant tank.
- Use John Guest Watermark pipe for first 100 mm from tank.
- Hot water outlet must pass through a tempering valve in van plumbing.
- Heater can run without water supply connected.

7. Startup and Testing

- Power heater and observe ignition sequence:

1 Fuel pump check

2 Heater fan starts

3 Coolant pump starts

4 Glow pin heats

5 Fan increases speed

6 Fuel pump starts pumping

7 Heater ignites

- Run for 30 min for clean burn.
- Check coolant, fuel, and water lines for leaks.
- If heater fails to start after three attempts, unlock heater and prime fuel line.

Common faults:

- Controller flashing on startup: controller not connected properly.
- Heater stops shortly after fan starts: coolant pump not connected.
- No start: insufficient power — connect to mains or charge battery.
- No fuel flow: check tank fuel level and pump connection.

Maintenance Guidelines

Task	Frequency
Flush coolant system	Every 2 years
Run system (off-season)	Monthly

Wiring colour connection for controller:

- Yellow to Green
- White to White
- Black to Blue
- Red to Red



Heater Unlock Instructions

- Start Heater and immediately remove power (pull fuse)

Liquid Heater Fault Codes

Code	Malfunction description	Recommended solutions
01	Overheating	1. Perform complete test of the fluid loop. 2. Test the pump; replace if necessary. 3. Test the overheating sensor and the temperature sensor; replace if necessary. 4. Test the antifreeze for suitability at current ambient temperatures.
02	The risk of overheating. Temperature difference between the readings of the overheating sensor and heat sensor is too big	
03	Temperature sensor fault No. 1.	Replace the sensor assembly.
04	Temperature sensor fault No. 2.	

05	Flame indicator fault.	Test connecting wires. Test ohmic resistance between display leads; it must not exceed 10 Ω. Replace the faulty flame indicator.
06	Control unit temperature sensor fault	Replace the control unit of the heater.
09	Glow plug fault.	Test glow plug. Replace if necessary.
10	Air pump fault. Speed lower than rated.	Test electric motor wiring. Correct the fault; replace the air pump if necessary.
12	Shutdown due to voltage over 16 V (30.8 V).	This defect is possible if the pre-heater starts when the vehicle engine is running. This may be caused by vehicle voltage regulator fault.
13*	All attempts to start failed.	In case all start attempts were used -test the amount and flow of fuel supplied. Test the air intake, the filter, and the gas exhaust pipe. Test the glow plug.
14	Liquid pump fault.	Test short circuit and discontinuity of circulation pump wiring; test the pump; replace if necessary.
15	Shutdown due to voltage below 10 (20) V.	Test voltage at connector XS2 on the heater. Test the battery, the vehicle voltage regulator, and power supply wiring.
16	Ventilation time exceeded.	The flame detector is not cooled down enough by purging. Test the air intake, the filter, and the gas exhaust pipe. Test the flame detector; replace if necessary.
17	Fuel pump fault.	Test the fuel pump power wiring for short circuit, replace if necessary.