

## INSTALLATION INSTRUCTIONS: Peregrine Vertically Mounted Coolant Heater

Before starting the installation, please check the following:

- That two points connecting in to the water system are available for *each* Peregrine coolant heater.
- The suitability of the supplied fitting before commencing installation, as some engines do vary. We can supply alternative fittings if required
- On mobile applications where there will be significant vibration, please order an anti-vibration kit with the heater.
- Incorrect installation may cause heater damage and will invalidate the warranty.

The top connection should be a point on the engine block to which there is a direct rise of water from the heater unit without risk of an air-lock. The top connection point should have a head of water in the block above it for maximum circulation (ie, core plug, side block connection etc).

Mount the **Peregrine** heater within 30° of vertical beneath the top engine connection, with it's connector box at the lower end secured to a nearby panel, beam or chassis member. The lower (side) connection of the heater should be pointing in the general direction of the bottom engine connecting point used for the installation. Select a suitable low point such as the block drain, oil cooler drain etc that will allow sufficient flow of water, ideally at least 200mm lower than the top engine connecting point. A bottom connecting point may be used between the water pump and radiator (see overleaf). If the two block connecting points used are of similar height, there may be inadequate flow of coolant through the heater due to insufficient temperature difference resulting in heat stress and shortening the heater's life.

The length of the hose run should be as short as possible to maximise flow. Ensure there are no loops, dips or kinks in the hose and that the fittings are installed in such a way that no air-locks or sludge traps can be formed by their positioning as these will restrict coolant flow through the heater. The hose from the bottom engine connecting point should run downwards to the heater's side (lower) connection (see overleaf), with the hose from the heater's top connection running up to the top engine connection.

When re-filling the engine, ensure that no impurities (rust, oil etc) are allowed to form within the system as this can cause a build-up of scale on the elements which may cause them to fail. At regular intervals, check the hoses for signs of cracking or hardening and replace as necessary. Please contact us for replacement hose lengths.

**Please contact us if you require any installation assistance or additional fittings or hose.**

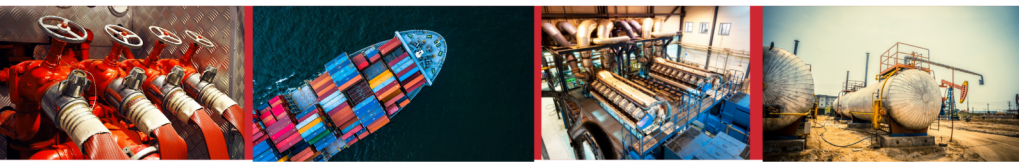


**PEREGRINE**

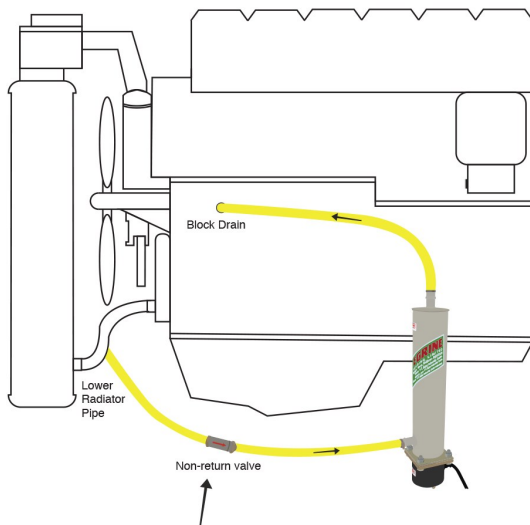
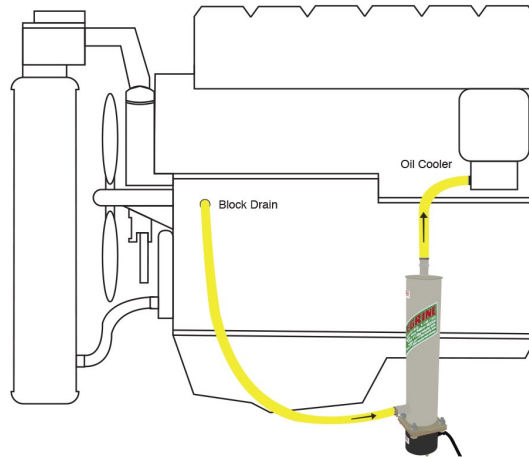
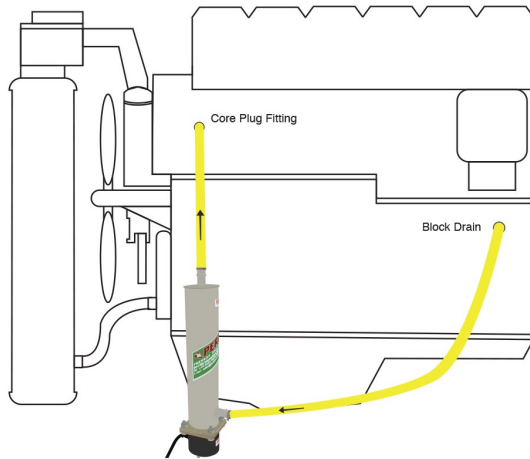
### CONTACT US

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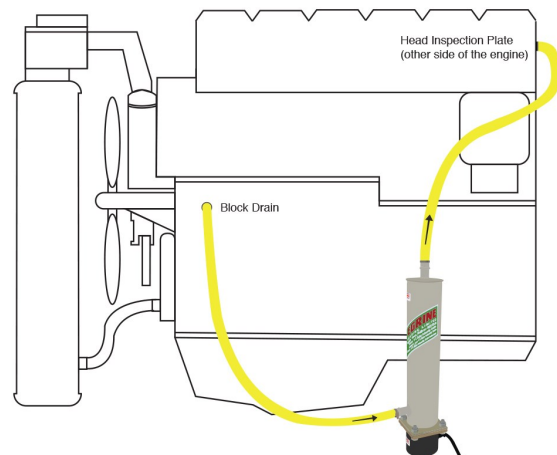
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# INSTALLATION INSTRUCTIONS: Example Installation Configurations



If by necessity the heater installation bypasses the water pump, you may in some cases wish to install a special U41 non-return valve to prevent back flow through the heater when the engine is running. Contact Sales office or see end of section 5 of price list.



**Wiring Information:** Each heater is supplied with 2000mm of cable fitted as standard. To comply with warranty, always use the cable, connector box and nameplate supplied as fitted. Wiring is standard:

**Brown = Live**

**Blue = Neutral**

**Green/Yellow = Earth**



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