



Pre-Plumb Package Supplement

Thank you for purchasing the Cool Energy Pre-Plumbed / Pre-Wired inverTech Heat Pump & Cylinder Package. Most of the plumbing and wiring has already been done for you, and the heat pump controller and sensor probes have already been installed to the cylinder.

Operation:

The heat pump should be set in heating and hot water mode.

The heat pump should be turned on, on the controller and set up as per the heat pump installation manual. Once activated the heat pump will give priority to the hot water system. It will initially heat the hot water cylinder to the hot water setpoint and then move the 3-way valve ready for heating. If there is a volt free call from your heating controls the heat pump will continue to heat the buffer tank to the buffer setpoint until satisfied.

Quick Guide – Electrical Connections

Step 1.

Familiarize yourself with the system and components (see included electrical connections and plumbing example)

Step 2.

Connect the heat pump data cable to the heat pump and cylinder data cable connection.

This is a simple CAT6 cable with RJ45 plugs each end.

(This cable carries the call signal, controller, Wi-Fi and sensor connections back to the heat pump)

Step 3.

Connect a 3-core cable to the 3-way valve connection in the heat pump and the other end in the cylinder 3-way valve connection point.

(This cable carries the 3-way valve signal from the heat pump to switch between heating and hot water modes)

Step 4.

Install the buffer probe into the buffer probe pocket on the buffer tank.

(The probe is pre-wired and coiled up on the front of your cylinder)

Step 5.

Connect the volt free heating call signal

(This can be from an underfloor heating wiring center, wired relay, wireless relay, room thermostat for example as long as there is no mains voltage in the call just a dry contact switch.)

Step 5. (Optional)

Wi-Fi Module Connection – If you have purchased the Wi-Fi Module kit for your system, the Wi-Fi module connection point has already been pre-wired for you. Simply plug-in the module connection kit into the terminal box and follow the Wi-Fi set up manual to connect.

Quick Guide - Plumbing Connections

Heat Pump

The Heat Pump should be plumbed in accordance with the heat pump installation manual.
A heat pump flow and return has been provided and labeled on the pre-plumbed cylinder for you to connect to.

Hot Water Cylinder

The Hot Water Cylinder should be plumbed normally in accordance with the hot water cylinder installation manual.
Water connections have been labelled to indicate hot, cold, and secondary water connections.

Buffer Tank

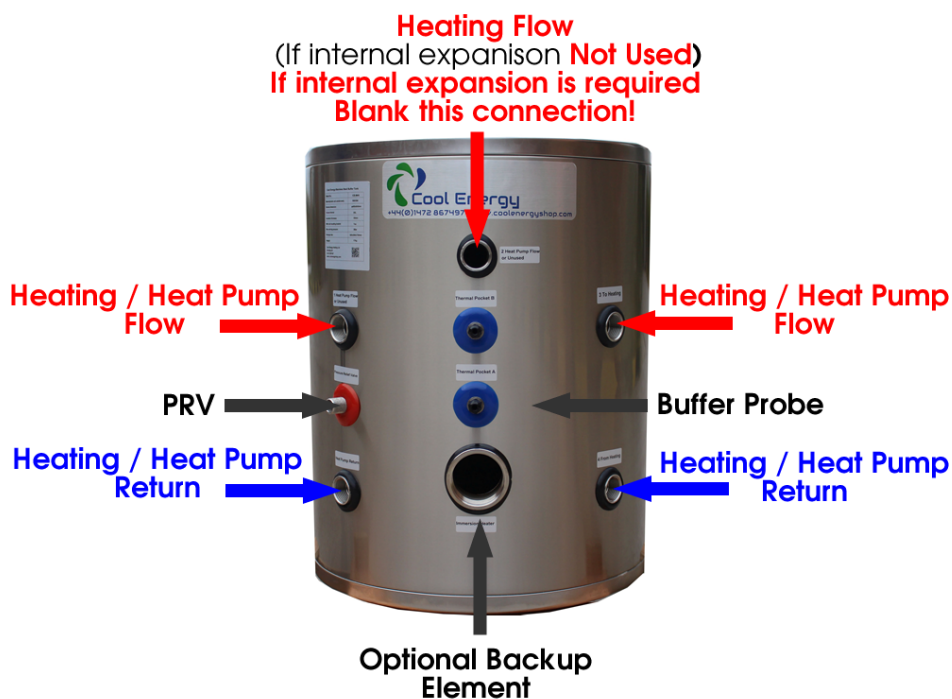
Buffer tank flow and return connections are marked on the hot water cylinder to indicate the connections from the cylinder itself to the buffer.

The return connections on the buffer can be to any side lower port.

The flow into the buffer can be either the left side or right side top ports.

The heating flow to your system can be either the left or right top side ports if using internal system expansion.

If you are not using internal expansion and wish to use the whole buffer volume, please use the top middle connection for heating flow. (Connections shown below)



We would recommend combining the heating return and buffer return to cylinder together in the same port for the best efficiencies.
(This is shown on our diagram.)

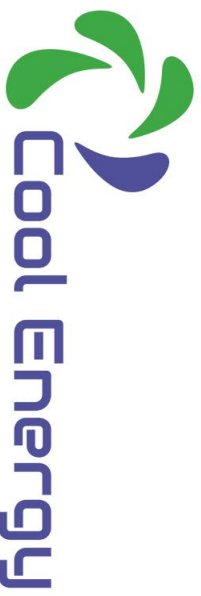
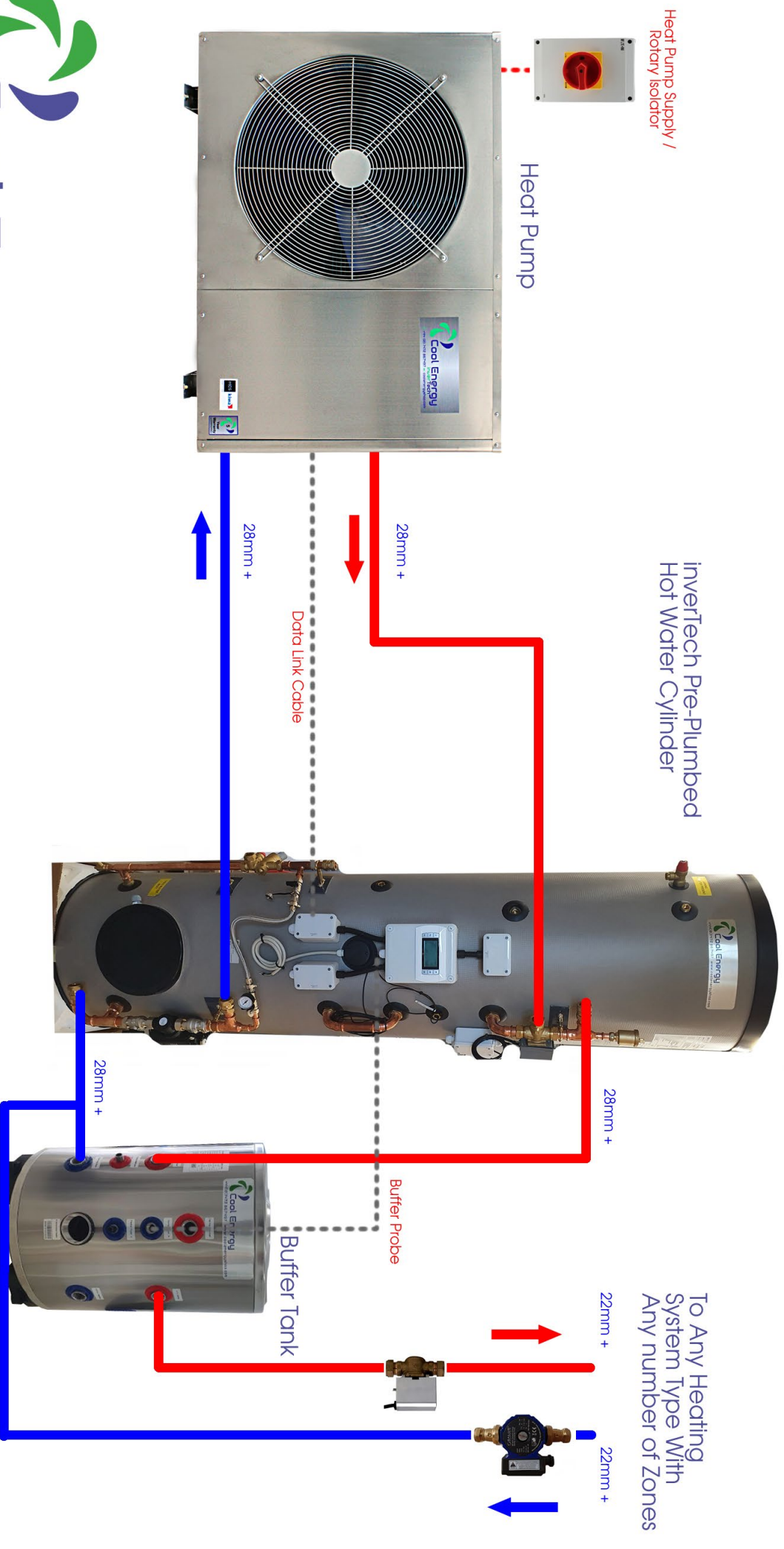
Heating System

Any number of zones can be installed on the heating system side of the buffer.

This will be plumbed conventionally via zone valves or manifolds depending on the intended operation or required system design.

Should you need any further support please contact the office for more information on 01472 867497 / sales@coolenergyshop.com

inverTec Range - Hot Water & Heating Example Diagram



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IVT Pre-Plumbed Tank

inverTec Range – Pre-Plumb Wiring Connections

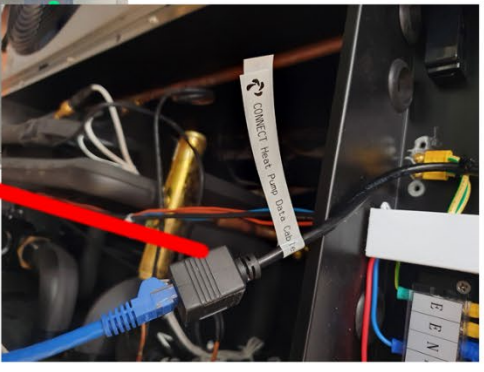
Heat Pump Supply / Rotary Isolator



Heat Pump



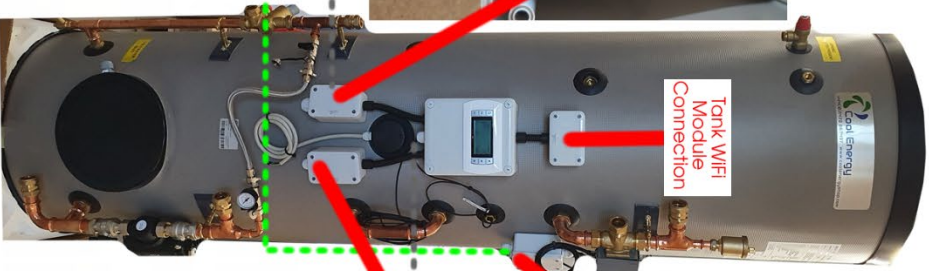
Heat Pump Data Link Connection



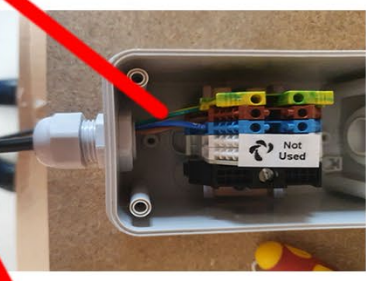
Tank Data Link Connection



Hot Water Cylinder



3 Port Valve Connection



Voit Free Coil Heating controls



Data Link Cable

3-Port Valve Cable

Heat Pump HW Valve Live 3-Port Valve Connection



Buffer Tank



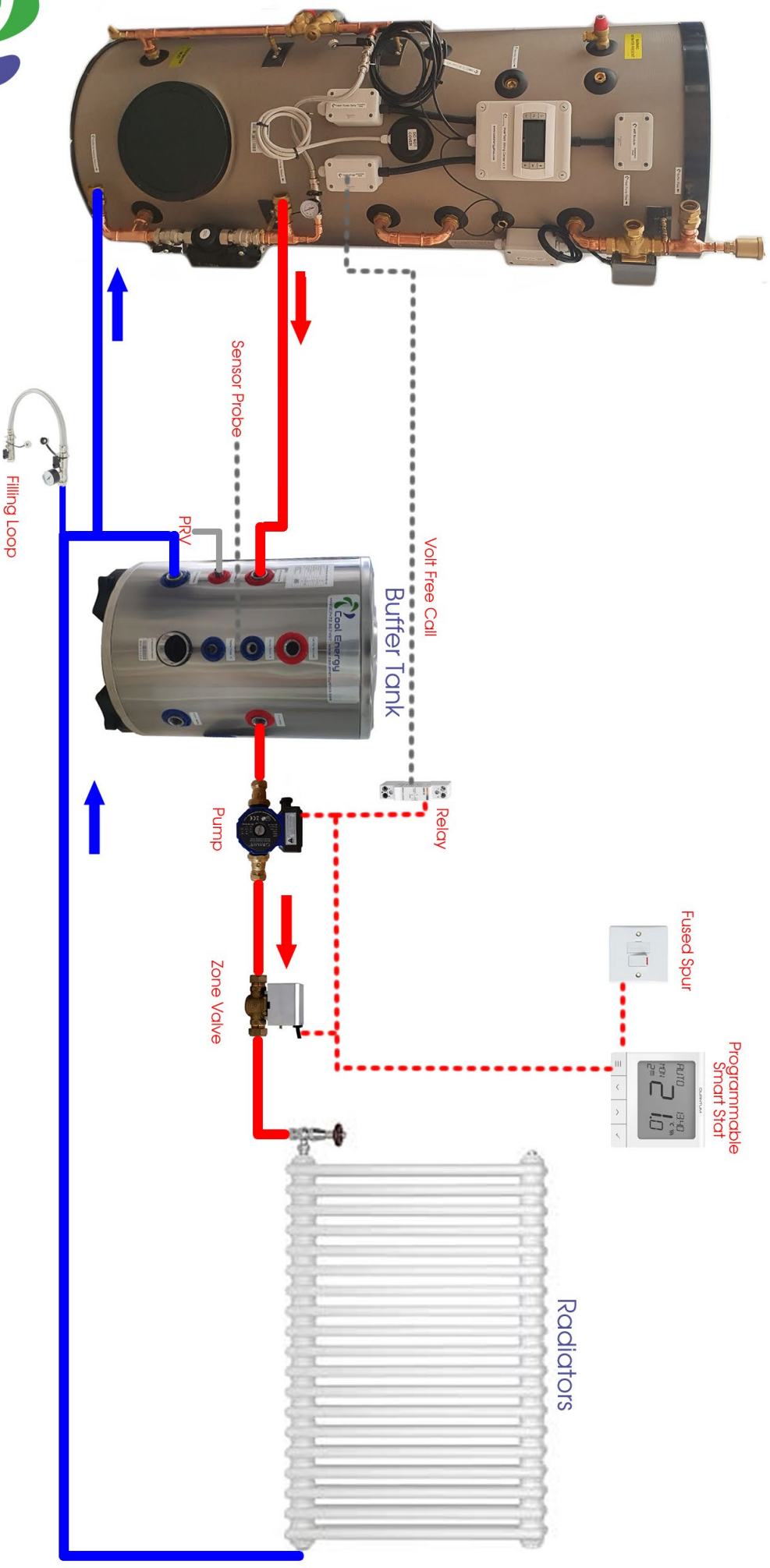
Buffer Probe



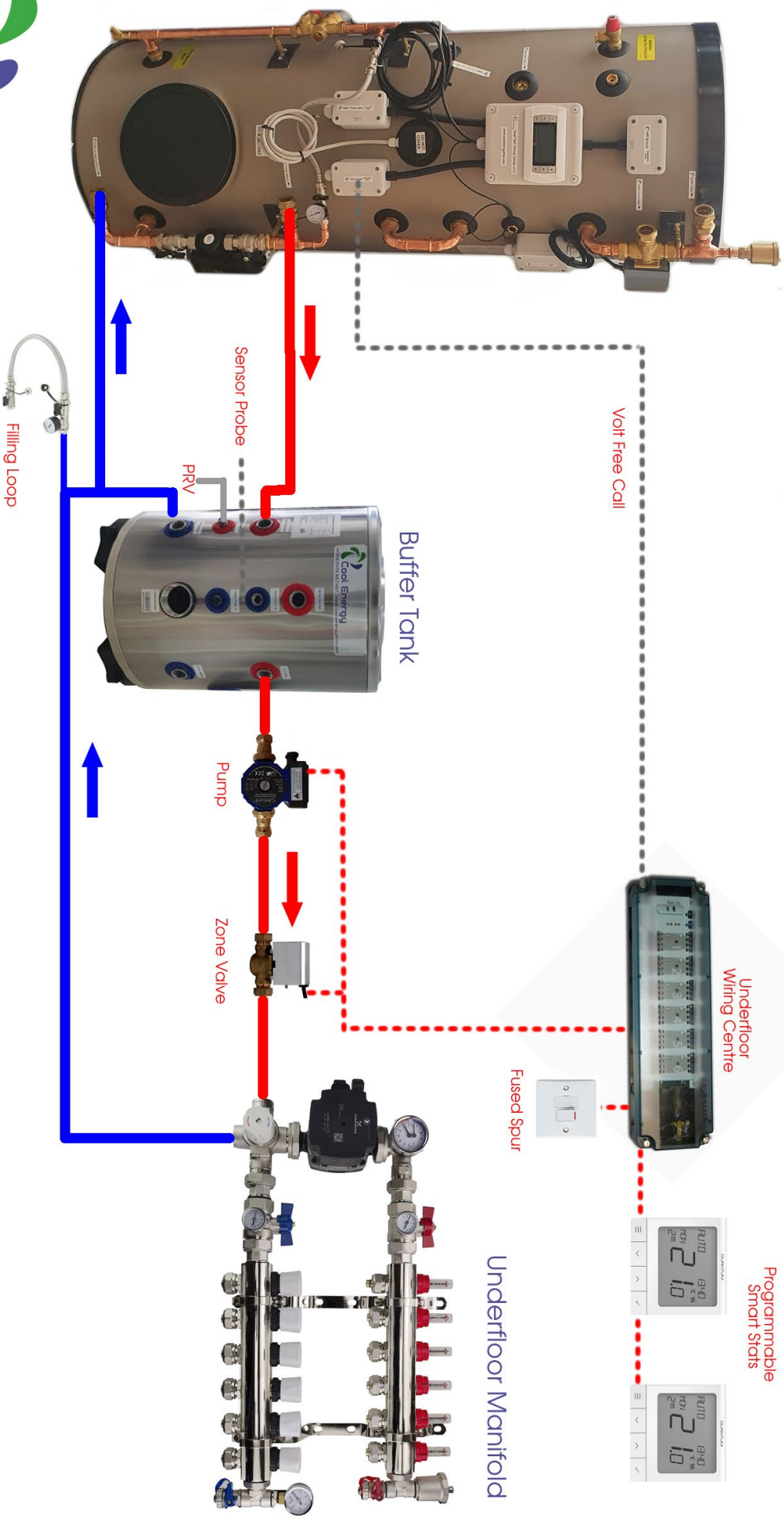
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ivT Pre-Plumbed Tank

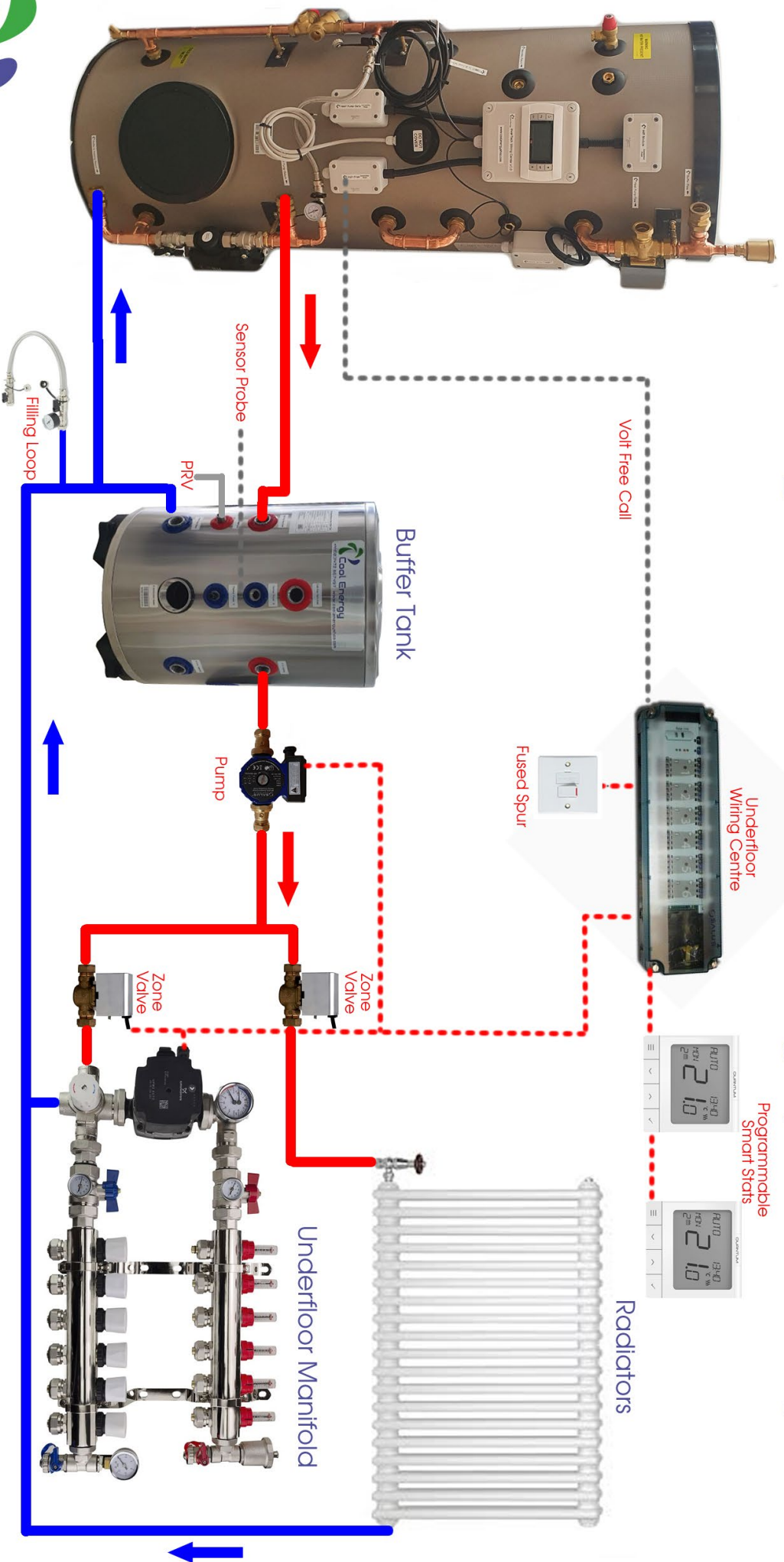
inver-Tech Range - Pre-Plumb Heating System Example



inverTech Range - Pre-Plumb Heating System Example



inver-Tech Range - Pre-Plumb Heating System Example



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Radiators & Underfloor



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