



Underfloor Manifolds

Underfloor manifolds

Manifolds are used in underfloor heating systems to control the flow of water through the system and provide an even, comfortable warmth across the floor. The manifold acts as the hub of heating system connecting to your underfloor pipes.

Underfloor manifolds are able to control multiple zones at once, allowing each zone to be warmed to a different temperature depending on what the user desires.

Central Heating New Zealand offers a variety of manifolds from FAR, iTap and Variotherm. FAR and iTap are most commonly used for underfloor heating. Variotherm's underfloor manifolds have been specifically designed for both heating and cooling systems.

Manifold locations

Underfloor manifolds are typically placed centrally in the home for effective performance. Commonly, manifolds are located in the hallway cupboard or recessed into the hallway wall.



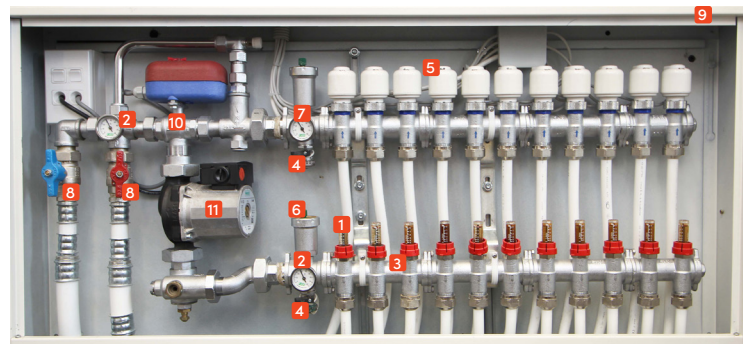
- Sizing to suit any system
- Flow rate can be controlled through each loop
- Recessed options available for FAR manifolds
- Can be showcased or hidden in a cupboard
- High quality components



VARIOTHERM

Manifold components

1. **Flow Gauge:** The flow gauges show the current flow rate for each zone, and are set using the flow adjustment valves (3). The required flow rate is calculated during the design process and are shown on the CHNZ heating drawings.
2. **Flow Temperature Gauge:** Warm water from the heat source is fed into the bottom part of the manifold. The temperature of this water can be seen on the flow temperature gauge.
3. **Flow Adjustment:** The flow adjustment valves simply controls the rate of water moving through each circuit.
4. **Filling/Drain Off Valve:** The filling and drain valve is used for the initial filling and draining of the underfloor heating system.
5. **Actuators:** The actuator acts as a gate, opening and closing to allow water to flow through each circuit. The actuator is controlled by the corresponding zone thermostat.
6. **Automatic Air Vent:** The air vent allows air to be removed from the underfloor heating system.
7. **Return Temperature Gauge:** This allows the differential temperature between flow and return to be assessed.



8. **Main Isolating Valves:** Used to isolate the manifold during the initial filling and servicing.
9. **Manifold Cabinet:** Galvanised steel manifold cabinet for flush or surface mount application. Keeps pipe work and manifold protected.
10. **Circulation Pump:** Some manifolds will also be installed with a circulation pump dedicated to pumping the water around the floor, typically this is only the case for manifolds with mixing valves
11. **Mixing Valve:** When the underfloor system is powered by a high temperature heat source (boiler) the water pumped into the floor needs to be mixed to a lower temperature with a mixing valve first.

How do manifolds work?

A manifold functions as the hub of your underfloor heating system, it connects the heat source (which warms the water) and the underfloor pipes which distributes radiant warmth around your home. Underfloor manifolds are able to control multiple zones at once, allowing each zone to be different temperatures depending on what the user desires*. Underfloor pipes are connected to the manifold



*Underfloor manifolds can be controlled by a single thermostat or multiple thermostats, the flow through each of the loops is then managed to ensure an even comfort level throughout the each zone

which is made up of between 2 to 14 ports (sometimes more) depending on how many loops your underfloor has. The manifold has a flow and a return rail. The flow (top rail of the manifold in photo on left) transfers the warm water from the heat source into each underfloor pipe loop. When your home is needing heat, the warm water from the heat source circulates through the underfloor pipe loops creating radiant warmth before returning to the return rail of the manifold. The return (bottom rail manifold in photo on left) funnels the water from the loops back into the heat source to be reheated and re-purposed through the closed network of piping.

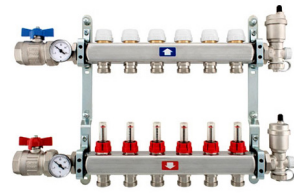
Underfloor heating must be installed by experienced installers. Each manifold is made up of flow temperature gauges, pressure gauges, manual air vents, filling/drain off valves, mains isolating valves and more which are all used by the underfloor heating installers during installation or servicing process.



VARIOTHERM

iTap Models

iTAP pre-assembled, stainless steel manifolds offer considerable cost savings when compared to brass manifolds of comparable size specifications and function. Thanks to an increased cross-section iTAP manifolds allow a 20% higher flow rate than brass manifolds.



— iTap Manifold Kit

Product Code	Model	Length	Height
UFM04WI	iTap UF 4 Way Manifold	412mm	336mm
UFM06WI	iTap UF 6 Way Manifold	512mm	336mm
UFM08WI	iTap UF 8 Way Manifold	612mm	336mm
UFM10WI	iTap UF 10 Way Manifold	712mm	336mm
UFM12WI	iTap UF 12 Way Manifold	812mm	336mm
UFM13WI	iTap UF 13 Way Manifold	862mm	336mm

Variotherm Models

The heating and cooling modular manifold from Variotherm regulates the flow volume and distributes water evenly in the surface heating and surface cooling systems for floors, walls and ceilings. Made from high quality thermoplastic this modular manifold is flexible in configuration.



— Variotherm Manifold Kit

Product Code	Model	Length	Height
UFM04WV	Variotherm UF 4 Way Manifold	345mm	320-370mm
UFM06WV	Variotherm UF 6 Way Manifold	445mm	320-370mm
UFM08WV	Variotherm UF 8 Way Manifold	545mm	320-370mm
UFM10WV	Variotherm UF 10 Way Manifold	645mm	320-370mm
UFM12WV	Variotherm UF12 Way Manifold	745mm	320-370mm
UFM13WV	Variotherm UF 14 Way Manifold	845mm	320-370mm

FAR Models

The FAR Underfloor manifolds are a high specification commercial quality product used globally in the heating and cooling industry. Mechanical specifiers select FAR Underfloor Manifolds and control units for high end projects due to their superior flow characteristics, specification and ease of installation and service.

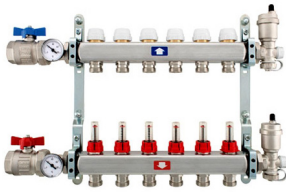


— FAR Manifold Kit

Product Code	Model	Length	Height
UFMKIT06	FAR UF 6 Way Manifold Kit	375mm	395-415mm
UFMKIT08	FAR UF 8 Way Manifold Kit	475mm	395-415mm
UFMKIT09	FAR UF 9 Way Manifold Kit	530mm	395-415mm
UFMKIT10	FAR UF 10 Way Manifold Kit	580mm	395-415mm
UFMKIT11	FAR UF 11 Way Manifold Kit	630mm	395-415mm
UFMKIT12	FAR UF 12 Way Manifold Kit	680mm	395-415mm
UFMKIT13	FAR UF 13 Way Manifold Kit	730mm	395-415mm
UFMKIT14	FAR UF 14 Way Manifold Kit	780mm	395-415mm
UFMKIT15	FAR UF 15 Way Manifold Kit	830mm	395-415mm
UFMKIT16	FAR UF 16 Way Manifold Kit	880mm	395-415mm
UFMKIT17	FAR UF 17 Way Manifold Kit	930mm	395-415mm
UFMKIT18	FAR UF 18 Way Manifold Kit	980mm	395-415mm

Click for more information or visit centralheating.co.nz/manifolds

More information →



— iTap Manifold Kit

iTap Models

ITAP pre-assembled, stainless steel manifolds offer considerable cost savings when compared to brass manifolds of comparable size specifications and function. Thanks to an increased cross-section iTAP manifolds allow a 20% higher flow rate than brass manifolds.

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UFM10WI	iTap UF 10 Way Manifold	712mm	336mm
UFM12WI	iTap UF 12 Way Manifold	812mm	336mm
UFM13WI	iTap UF 13 Way Manifold	862mm	336mm



— Variotherm Manifold Kit

Variotherm Models

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UFM12WV	Variotherm UF12 Way Manifold	745mm	320-370mm
UFM13WV	Variotherm UF 14 Way Manifold	845mm	320-370mm



— FAR Manifold Kit

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