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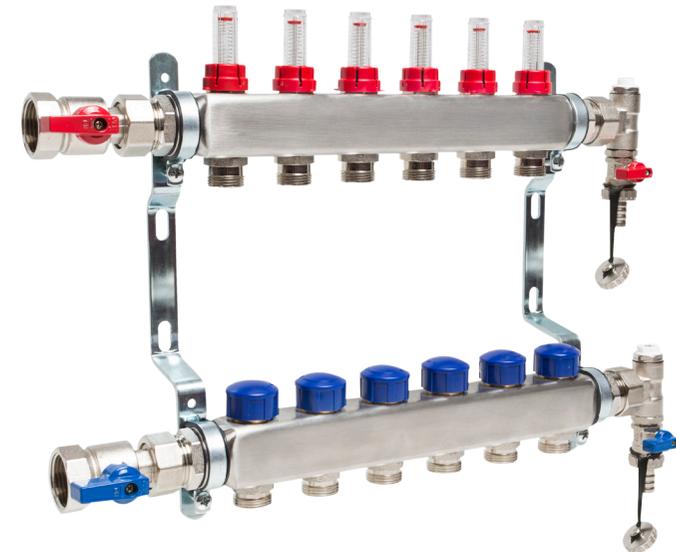
[www.rwc.co.uk](http://www.rwc.co.uk)

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ZINS452002\_001\_01-17

## Installation and Maintenance Instructions



## Underfloor Heating Manifold Kits



Please Note - Euroconus connections supplied separately, see page 10 for further details.

A range of stainless steel manifolds; 2-12 circuits  
designed for underfloor heating applications.

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## Spares & Pipe Connections

### Spares

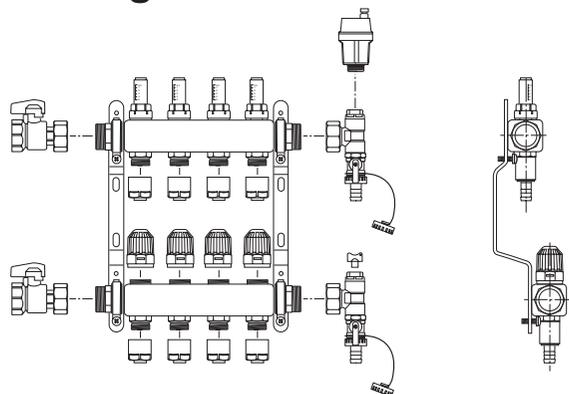
SKIT450001:	Manifold Ball Valve - Red
SKIT450002:	Manifold Ball Valve - Blue
SKIT450003:	Manifold Bleed Valve, includes key
FILL452001:	Drain/ Filling Valve Pair - Red & Blue
SKIT450006:	Manifold Tee Piece 1/2" x 1" x 1/2"
SKIT452007:	Manifold Flow Meter
SKIT452008:	Manifold Circulating Isolating Valve
SKIT450009:	Manifold Blanking Cap
SKIT450012:	Pressure Gauge & Bush
SKIT450014:	Manifold Thermoelectric Head 230V
SKIT450015:	Manifold Thermoelectric Head 24V
AVEN450001:	1/2" UFH Auto Air Vent

### Euroconus Connections

MFIT100001:	Euroconus Fittings 15 x 2.0
MFIT100002:	Euroconus Fittings 16 x 1.5
MFIT100003:	Euroconus Fittings 16 x 2.0
MFIT100004:	Euroconus Fittings 16 x 2.2
MFIT100005:	Euroconus Fittings 17 x 2.0
MFIT100006:	Euroconus Fittings 20 x 2.0
MFIT100050:	Euroconus Fittings 14 x 2.0
MFIT100052:	Euroconus Fittings 16 x 2.25
MFIT100053:	Euroconus Fittings 15 x 1.5

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## Commissioning



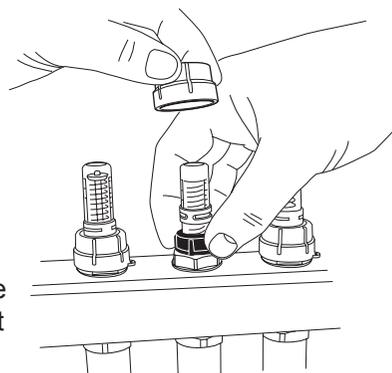
When initially filling the UFH heating system it is important to remove the air in the pipework. In order to do this a hose should be connected to the upperfill valve and the bottom valve should be opened to allow the water to be flushed into a bucket or drain.

First isolate all but one of the heating circuits by turning off the relevant decorator caps. Next flush out the open circuit with clean water until it runs freely from the bottom valve. Isolate this circuit and open the next one.

Repeat this until all circuits have been filled. Introduce any inhibitor or anti-freeze at this stage.

Please note: The manifold flow meters are delivered in the closed position, these need to be opened for water to flow through the loops.

Flow rates should be set to correspond with the system design. This is achieved (with the pump running) by lifting the locking collars at the base of the flow indicators and twisting the indicator base until the desired flow is indicated, then re-fit the locking collars.



Do not twist the glass as this will completely remove the gauge, this is designed only to be removed for cleaning purposes, and when the flow has been isolated.

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## Reliance Worldwide Corporation (UK) Ltd

Reliance Worldwide Corporation (UK) Ltd are part of the Australian based group of companies collectively known as Reliance Worldwide Corporation, with the UK brand known as Reliance Water Controls.

Reliance Worldwide Corporation (UK) Ltd is a specialist in the design, distribution and technical support for temperature and flow controls.

With group offices and manufacturing plants throughout the world RWC offers a wealth of knowledge and expertise which is reflected throughout our products. Being part of many specialised trade associations and having our own UKAS accredited laboratory, puts us at the forefront of any new regulations or changes which impact the industry, and allows for continuous product development and innovation, within our specialised product area.

Our core product range is related to thermostatic control, with the manufacturing undertaken at our head office in Brisbane, Australia. We have an extensive range of thermostatic mixing valves, shower control valves, and taps all of which use the same high quality technology to control the temperature of water. Within this range we have different valves to suit various applications and working parameters, including both TMV2 and TMV3 approved controls.

RWC, are market leaders of OEM controls with a complete range of safety valves for use in G3 unvented systems and a wide range of Underfloor Heating Controls (UFH) to allow for safe distribution of hot water, throughout a property. This range includes; thermostatic control valves for safe hot water temperatures, manifolds to enable even distribution, complete UFH kits to allow ease of installation & commissioning, and a range of modern and stylish programmers to complement these controls.

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## General Information

The RWC UFH manifold kit includes flow and return manifold bars that come pre-assembled to installation brackets are supplied with ball valves, manual air vents, filling / drain points, wall mounting plugs, screws, and identity labels for each zone.

## Materials & Specifications

Usual working temperature:	82°C
Maximum working pressure:	6 Bar
Maximum working temperature:	105°C
	(short term malfunction at 114°C)
Maximum test pressure:	6 Bar
Media:	Water with corrosion inhibitors
Manifold body:	304 stainless steel
Isolating Valve body:	Nickel plated brass
Drain Valve/ Air Vent:	Nickel plated brass
Internal Seals:	NBR and EPDM
Flat Face Seals:	Fibre
Bracket:	Zinc plated mild steel

### Flow Meters with Isolation

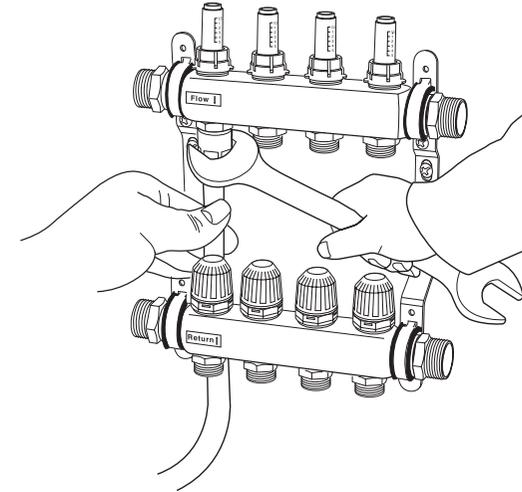
Maximum Static Pressure:	6 Bar
Maximum Temperature:	105°C
	(short term malfunction at 114°C)
Media:	Water with corrosion inhibitors
Flow Rate Range:	0-5 LPM
Connection Fitting:	Nickel plated brass
O Ring Seals:	NBR
Spring:	Stainless steel
Cover Cap:	ABS
Regulator Window:	Plastic

### Circuit Control Valve

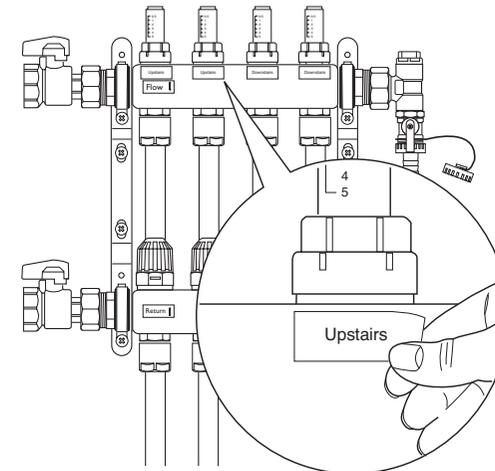
Maximum Static Pressure:	6 Bar
Maximum Temperature:	105°C
	(short term malfunction at 114°C)
Stroke:	3mm
Media:	Water with corrosion inhibitors
Connection Fitting:	Nickel plated brass
O Ring Seals:	EPDM
Washer:	EPDM
Spindle:	Stainless steel
Spring:	Stainless steel
Cover Cap:	ABS

Please note: the blanking plugs should be fitted on the drain/filling valve. The manifold is now ready to have the flow and return pipes and the UFHC temperature control unit attached.

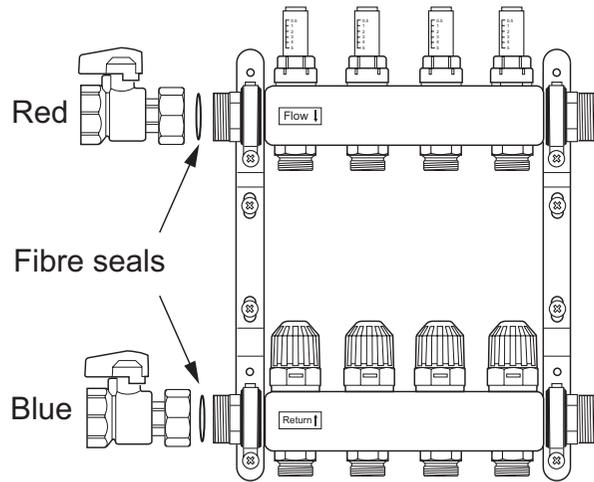
Ensure the UFH tube is cut squarely and is not damaged.



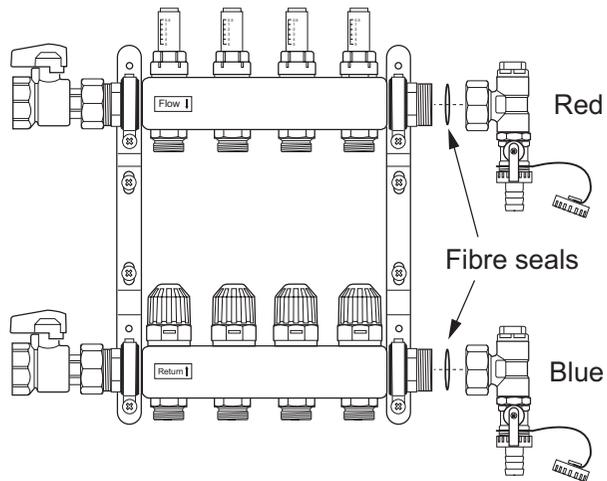
After the installation is complete the identity stickers can be used (if desired), to identify which zone each loop of pipe serves.



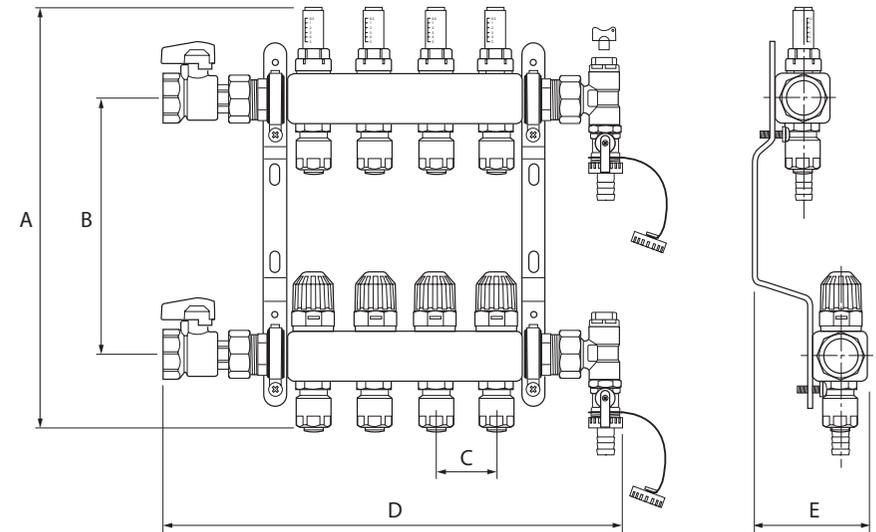
Fit the blue handled 1" union ball valve to the return manifold and the red handled 1" union ball valve to the flow manifold using the fibre seals provided.



Fit the end connection with the manual air vent and blue handled drain/filling valve to the return manifold and the end connection with the manual air vent and red handled drain/filling valve to the flow manifold, using the fibre seals provided.



## Dimensions



No of Circuits	A	B	C	D	E
2	342	210	50	276	90
3	342	210	50	326	90
4	342	210	50	376	90
5	342	210	50	426	90
6	342	210	50	476	90
7	342	210	50	526	90
8	342	210	50	576	90
9	342	210	50	626	90
10	342	210	50	676	90
11	342	210	50	726	90
12	342	210	50	776	90

All dimensions are shown in mm unless otherwise stated.

## Pack Contents

Before commencing the installation please check that all of the manifold UFH kit components are in the box.

The kit should include:

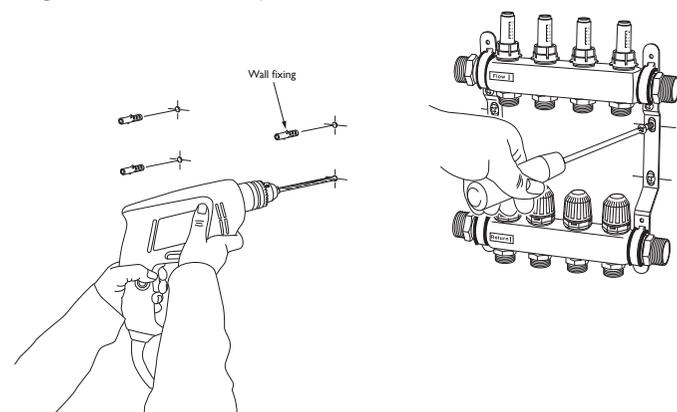
- One flow and one return manifold with euroconus connections pre-installed on wall mounting brackets
- One 1" red union type isolating ball valve
- One 1" blue union type isolating ball valve
- One 1" end connection with manual air vent and red handle filling point.
- One 1" end connection with manual air vent and blue handle filling point.
- Four fibre seals
- Two manual vent keys
- One sheet of identity stickers
- Wall plugs & screws
- Instruction booklet

Please note: Euroconus fittings are not supplied, and therefore should be obtained separately. See page 10 for further details on these fittings, along with spares and other accessories.

## Installation

Before installation the flow manifold bar needs to be rotated so the flow gauges are on top, with the connections below (as per pictures). To do this loosen the securing screws, twist the bar to the correct orientation and re-tighten the screws. The manifolds are packed in this way to protect the flow gauges whilst in transit.

Use the screws and plugs provided to mount the pre-assembled flow and return manifold assembly to the wall (please ensure that the screws and plugs provided are appropriate for your wall construction, if not alternative suitable fixings should be used).



Make sure that the manifold is level and that it is high enough so that the pipes can be installed easily.

