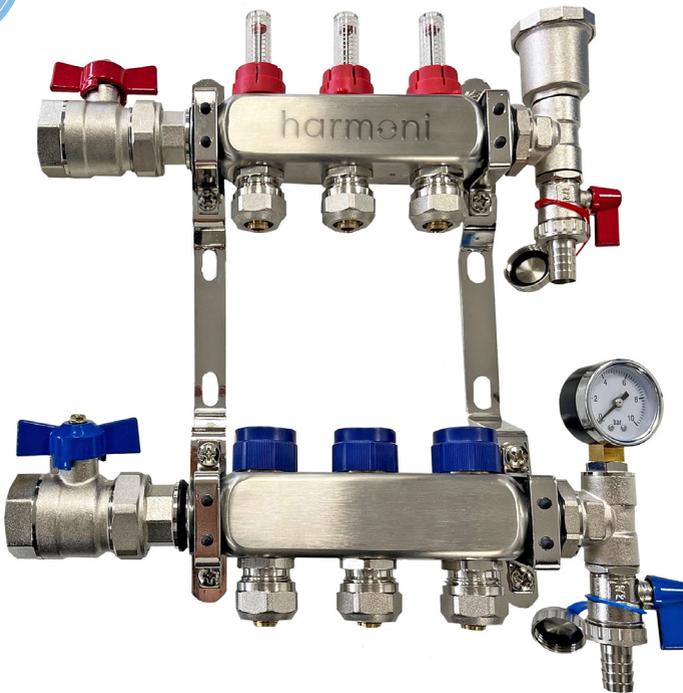


# harmoni

INSTALLATION MANUAL

## Wet Underfloor Manifold



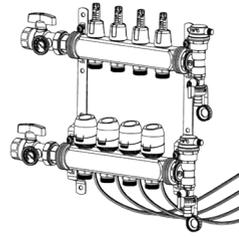
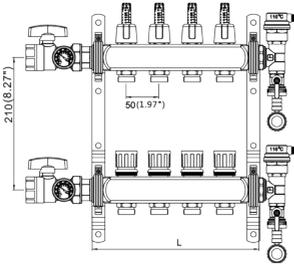
Before you begin installing, read through these instructions carefully and make sure all components are in the box.

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

**01473 559088**

# SPECIFICATIONS TECHNICAL DATA

Please follow these instructions carefully. If you require assistance prior to or during your installation please call our helpline on 01473 559088.

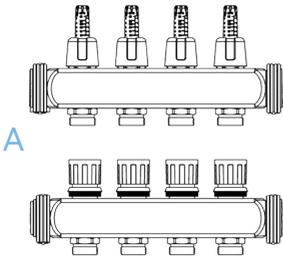


Specification	Connections	Loops	L/mm	L/in
FN16 – 1F – ¾×2	G1" × ¾"	2	155	6.10
FN16 – 1F – ¾×3	G1" × ¾"	3	205	8.07
FN16 – 1F – ¾×4	G1" × ¾"	4	255	10.04
FN16 – 1F – ¾×5	G1" × ¾"	5	305	12.01
FN16 – 1F – ¾×6	G1" × ¾"	6	355	13.98
FN16 – 1F – ¾×7	G1" × ¾"	7	405	15.94
FN16 – 1F – ¾×8	G1" × ¾"	8	455	17.91
FN16 – 1F – ¾×9	G1" × ¾"	9	505	19.88
FN16 – 1F – ¾×10	G1" × ¾"	10	555	21.85
FN16 – 1F – ¾×11	G1" × ¾"	11	605	23.82
FN16 – 1F – ¾×12	G1" × ¾"	12	655	25.79

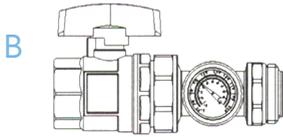
<b>Materials</b>	Manifold Body	Stainless Steel
	Port Connection	Brass
	Seal	EPDM
<b>Working Performance</b>	Permissible Maximum Continuous Working Temperature: 82°C (180F) at 6.9bar (100psi)	
<b>Working Media</b>	Media 1	Water
	Media 2	Water/Ethylene Glycol 50/50%
	Media 3	Water/Propylene Glycol 50/50%
<b>Flow</b>	Indication Scale	0.5-5L/min (0.13-1.32G/min)
	Indication Tolerance	± 10%
	Kvs	1.10
<b>Connection</b>	Supply / Return	G1" female
	Circuit Connection	G¾" male
	Flowmeter Connection	G½" male

# INCLUDED PARTS & NOTES

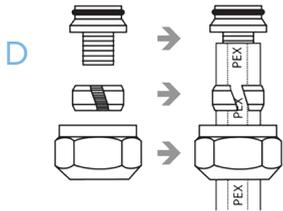
Please check all parts are included before starting installation.



A

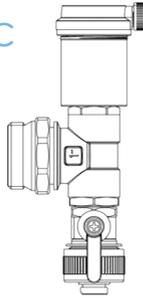


B

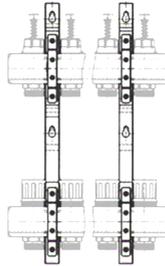


D

C

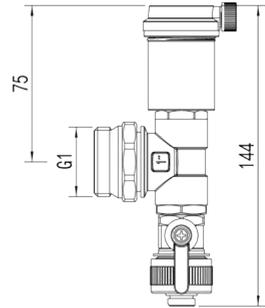


E

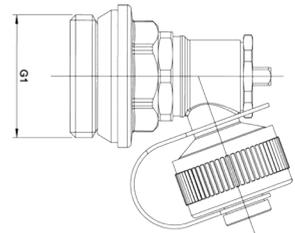


## Important Note

Illustrations show automatic air vents, both automatic & manual air vents are sold separately.



Automatic Air Vent



Manual Air Vent

A	Supply Manifold with Flow Meters
	Return Manifold with Adjustable Gate Valves
B	Red Inlet Ball Valve with Temperature Gauge
	Blue Inlet Ball Valve with Temperature Gauge
C	Air Purge/Drain Valve (Red)
	Air Purge/Drain Valve (Blue)
D	Compression Adaptors/Connectors
E	Wall Mounting Bracket



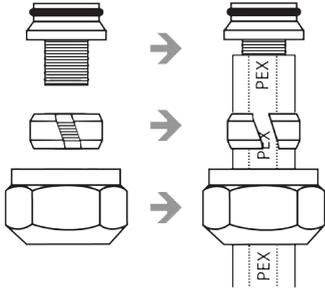
**If you have any questions or do not understand any of the instructions provided, please consult a qualified technician before proceeding. Safe operation of this manifold relies on proper installation. Do not use this product for any purpose other than it's intended use. Improper installation may cause damage or serious injury. We will not be liable for any damage or injury caused by improper use, installation or operation**

# INSTALLATION

Follow these instructions carefully and make sure the manifold is correctly assembled before filling with water.

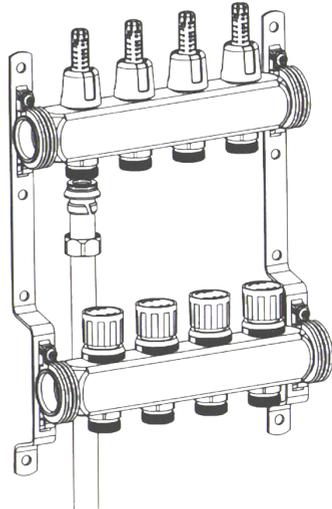
## Installation Tips

Make sure the Pex piping is cut at a clean, perpendicular angle, and PEX lines are installed on the manifold as straight as possible. This will ensure a leak-proof seal.



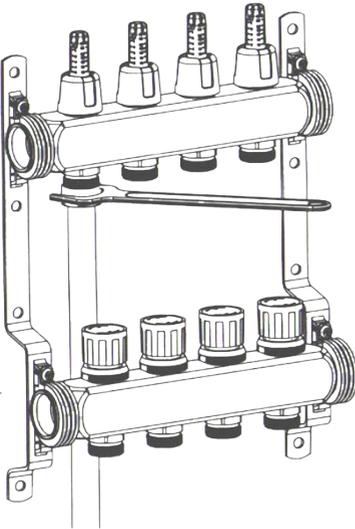
Compression fittings should be assembled as the picture above

1



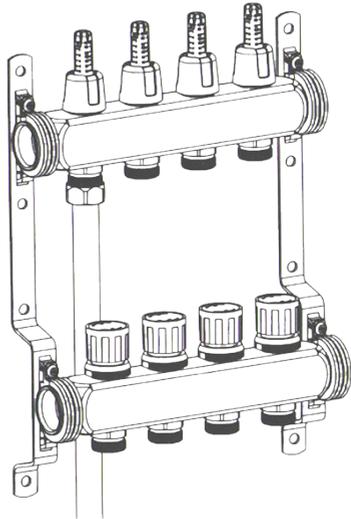
Connect tubing to manifold using the provided compression fittings

2



Tighten compression nut to the manifold with a wrench

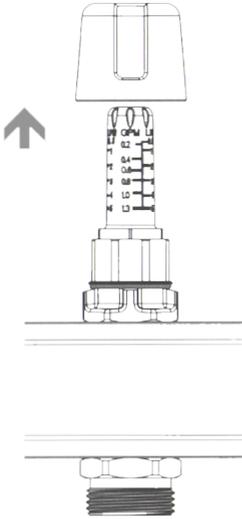
3



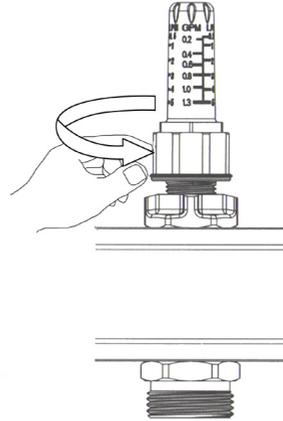
Repeat steps 1 and 2 on each loop to complete your installation

# FLOW METER OPERATION

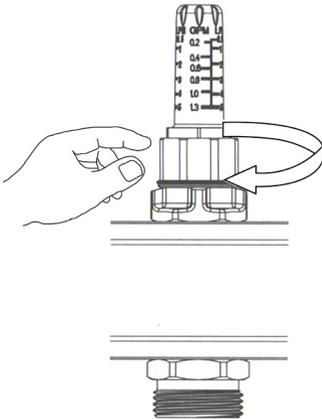
To make sure the system operates properly, these procedures should be followed.



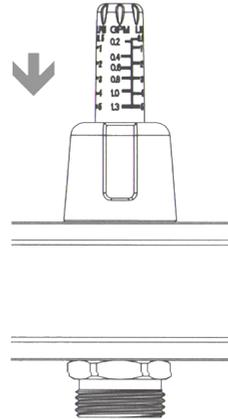
Remove the red flow meter cap



Turn the flow meter counter-clockwise to increase the flow rate



Turn the flow meter clockwise to decrease the flow rate



Replace the red cap on the flow meter to the locked position

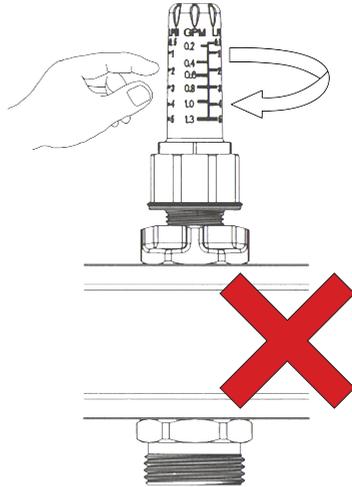
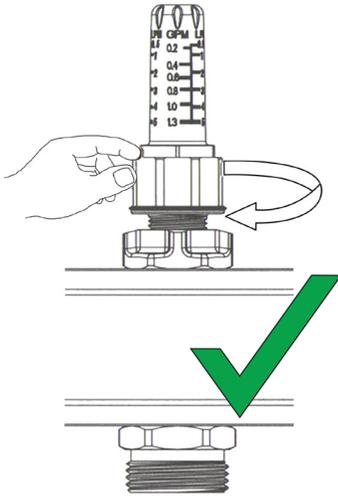
# READING THE FLOW METER

Do not hold flow meter by clear top part when turning to adjust flow rate.

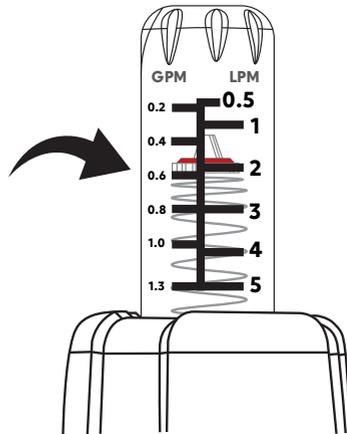


Do not hold flow meter by clear top part when turning to adjust flow rate.

Do not turn knob counter-clockwise more than 3 full turns, otherwise the red indicator disk will be out of range when the system is pressurized.



Flow can be determined by the position of the red indicator disk. In this example, the corresponding loop has a flow rate of 2L/min (0.53G/min)



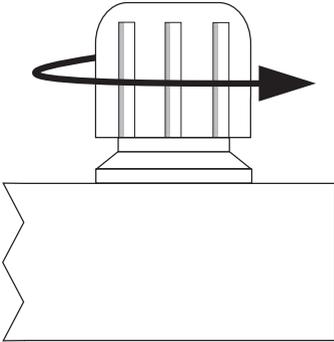
# PRESSURE TEST & ACTUATORS

To pressure test the assembled manifold, please perform the following steps below.

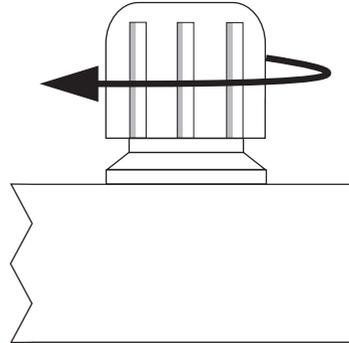
## Pressure Test

1. Make sure all lines are hooked up and tightened.
2. Check all air purge valves are closed and hooked up.
3. Connect Pressure Test Kit to the Supply side, where the air purge valve normally connects/threads into.
4. Apply air to the Pressure Test Kit from the schrader valve on the side of the gauge.
5. Pressurize your system to 30-40 PSI.
6. Allow system to sit overnight (if possible). Minimum 2 hours.
7. Check for pressure drop. Pressure reading may fluctuate between 5-10 PSI due to atmospheric changes.
8. If pressure reaches 0 PSI, there is a leak somewhere in your system.

## Gate Valve Adjustments and Actuators



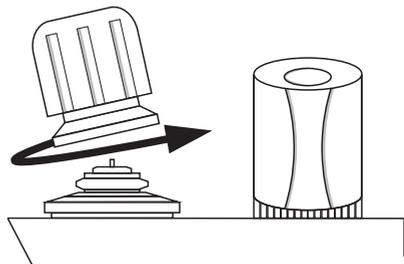
Turn gate valve counter-clockwise to OPEN the valve



Turn gate valve clockwise to CLOSE the valve

### Installing Actuators:

Remove valve cap by turning the base of the valve counter-clockwise. After the valve cap is removed, you can then install an option PEX GUY Thermostatic Actuator to automate your valves



# CONTACT DETAILS

If you have any questions please call our helpline on 01473 559088

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