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› FAHKNS 3 Branch PEX Manifold with 1/2" Adapters for Hydronic Radiant Floor Heating Instruction Manual

FAHKNS 167638-zhengmao

FAHKNS 3 Branch PEX Manifold with 1/2" Adapters Instruction Manual

Model: 167638-zhengmao

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your FAHKNS 3 Branch PEX Manifold with 1/2" Adapters. This manifold is designed for hydronic radiant floor heating systems, ensuring efficient and balanced heat distribution. Please read this manual thoroughly before installation and use to ensure proper function and safety.

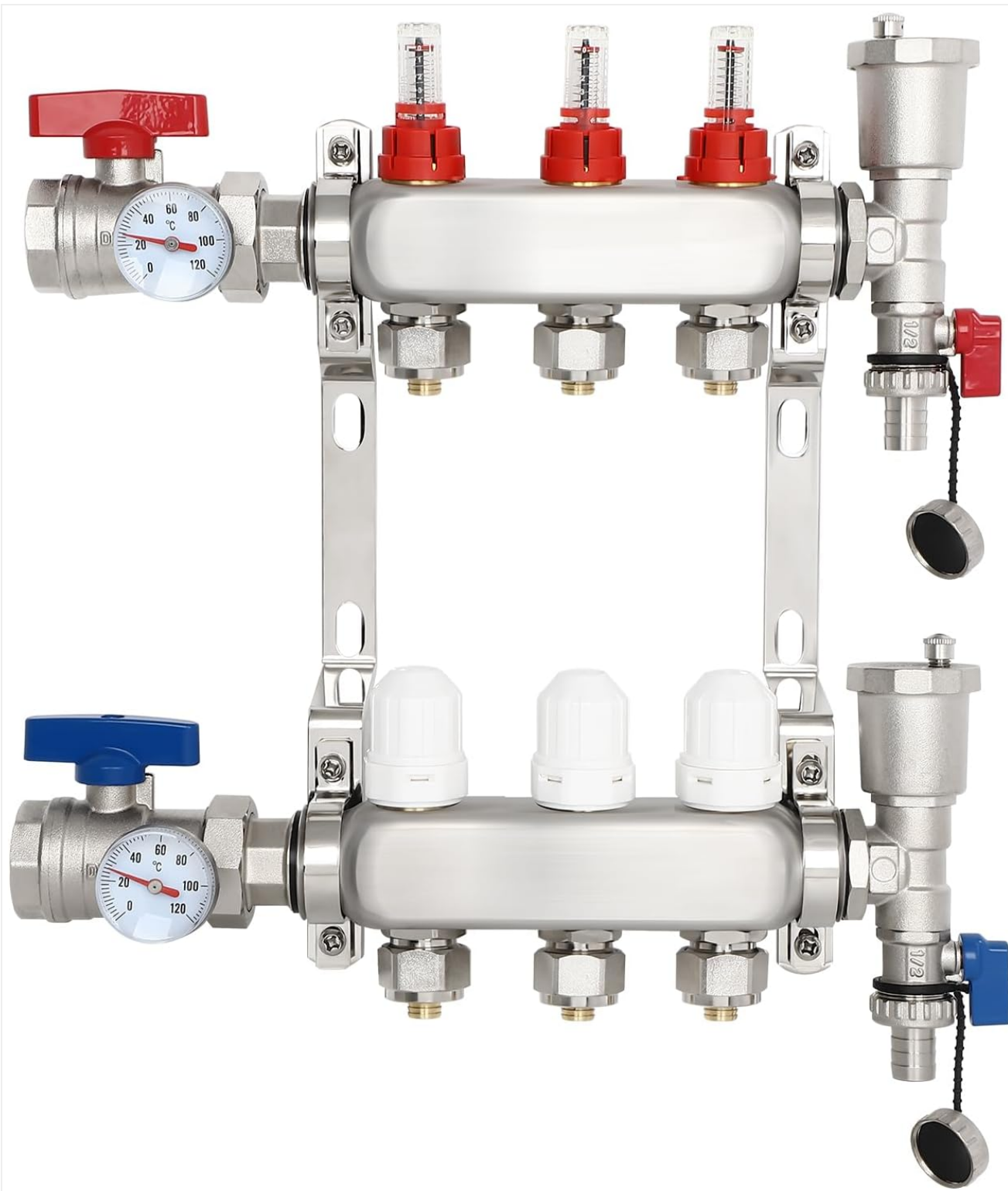


Figure 1: Overview of the FAHKNS 3 Branch PEX Manifold with 1/2" Adapters.

2. PRODUCT COMPONENTS

The FAHKNS 3 Branch PEX Manifold system includes the following main components:

- **304 Stainless Steel Body:** The main manifold pipes, constructed from corrosion-resistant stainless steel.
- **Visual Flow Meters:** Located on the inlet branch, these allow for precise adjustment of water flow to each circuit (0-5 liters per minute).
- **ABS Adjustment Handwheels:** For controlling the flow on the return branch.
- **Automatic Air Vent and Drain Valve:** Removes air from the system and allows for draining.
- **Water Inlet/Outlet Valves:** 1" NPT thread ball valves for main water supply and return.

- **Temperature Gauges:** Integrated into the inlet and outlet valves to monitor water temperature.
- **1/2" Adapters:** For connecting 12MM ID 16MM OD PERT PEXD and other underfloor heating pipes.
- **Mounting Brackets:** For securing the manifold to a wall or panel.

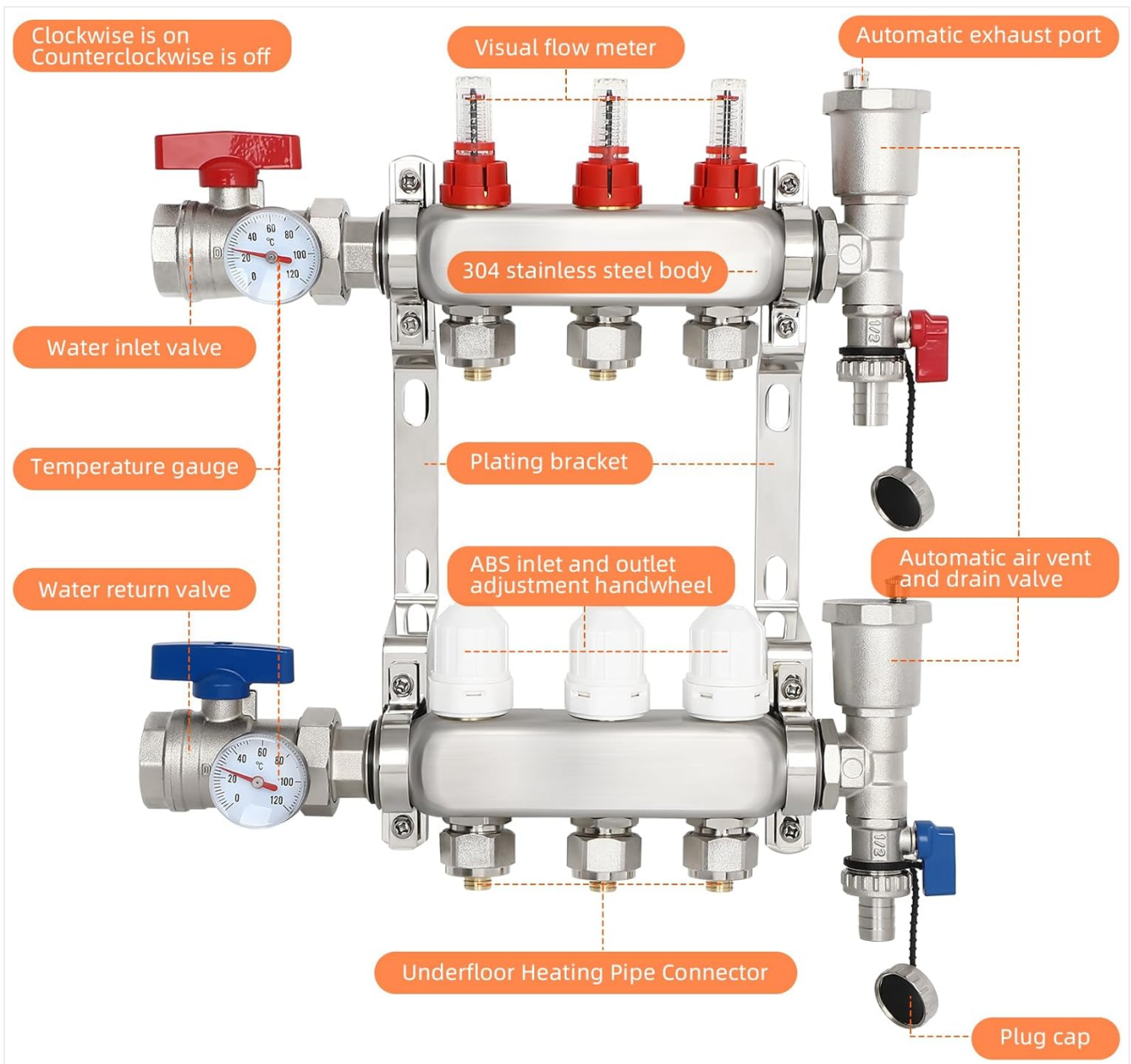


Figure 2: Labeled diagram of the manifold components, including the 304 stainless steel body, visual flow meters, ABS adjustment handwheels, automatic air vent and drain valve, water inlet/outlet valves, temperature gauges, and pipe connectors.

Separate spool

Removable for easy cleaning



Figure 3: Detail of the 1/2" adapters with high-quality sealing rings for secure, leak-free connections to PEX tubing.

3. SETUP AND INSTALLATION

Proper installation is crucial for the efficient operation of your radiant heating system. It is recommended that installation be performed by a qualified professional.

3.1 Pre-Installation Checklist

- Ensure all components listed in Section 2 are present and undamaged.
- Verify that the installation location is suitable, with adequate space and support for the manifold.
- Confirm compatibility with your PEX tubing (12MM ID 16MM OD).

3.2 Installation Steps

1. **Mount the Brackets:** Securely fix the plating brackets to a stable surface using appropriate fasteners. Ensure the brackets are level and spaced correctly to support both the inlet and return manifold tubes.

Fix the inlet and return main tubes on the bracket

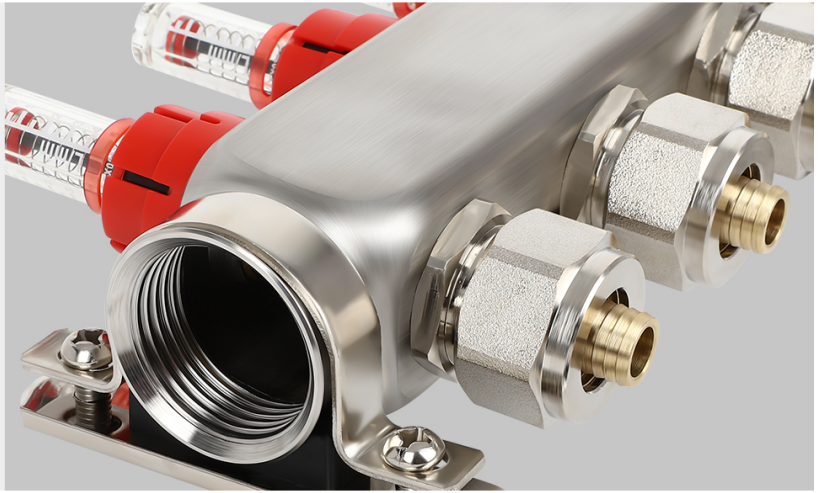


Figure 4: Illustration of securing the manifold tubes onto the mounting brackets.

- 2. Install Inlet and Return Valves:** Attach the main water inlet and return ball valves (1" NPT thread) to the manifold. Ensure all connections are sealed properly using appropriate thread sealant. Install the temperature gauges into the designated ports on these valves.

Install inlet and return water main valve and temperature pressure gauge



Figure 5: Step-by-step installation of the main inlet/return valves and temperature gauges.

- 3. Install Automatic Air Vent and Drain Valve:** Connect the automatic air vent and drain valve assembly to the end of the manifold. This component is essential for removing air from the system during filling and operation.

Install automatic exhaust valve and drain valve



Figure 6: Attaching the automatic air vent and drain valve to the manifold.

- 4. Connect PEX Tubing:** Attach the 1/2" PEX adapters to your radiant floor heating loops. Ensure a tight and secure

connection to prevent leaks.

5. **System Filling and Air Purging:** Once all connections are made, slowly fill the system with water. Open the automatic air vent to allow air to escape. Monitor the system for any leaks.

3.3 Installation Video Guide

For a visual guide on the installation process, please refer to the video below:

Video 1: FAHKNS Radiant Heating Manifold Installation Guide. This video demonstrates the unpacking and assembly steps for the manifold system, including component identification and connection procedures.

4. OPERATING INSTRUCTIONS

The FAHKNS PEX Manifold allows for precise control over your radiant heating zones.

4.1 Flow Adjustment

The visual flow meters on the inlet branch allow you to balance the water flow to each heating loop. This ensures even heat distribution across all zones.

- **Adjusting Flow:** Rotate the red caps on the visual flow meters to increase or decrease the flow rate. The scale indicates flow in liters per minute (0-5 L/min).
- **Balancing Loops:** Adjust each loop individually to achieve the desired flow and temperature balance for your heating system.



Figure 7: Detail of the visual flow meter for precise flow rate adjustment and the temperature control handwheel.

4.2 Temperature Monitoring

The integrated temperature gauges on the main inlet and return valves display the water temperature in Celsius. Monitor these gauges to ensure your system is operating within desired temperature ranges.

5. MAINTENANCE

Regular maintenance helps prolong the life and efficiency of your manifold system.

- **Annual Inspection:** Periodically inspect all connections for leaks and ensure all valves are operating smoothly.
- **Air Vent Check:** Ensure the automatic air vent is functioning correctly. If water is consistently dripping, the vent may need cleaning or replacement.
- **Cleaning:** The stainless steel body can be cleaned with a soft cloth and mild detergent. Avoid abrasive cleaners.
- **Sediment Filter:** The high-level water inlet design helps block sediment. If flow issues occur, check for sediment buildup in the system. The separate spools are removable for cleaning.

High level water inlet design

Effectively block **99%** of sediment impurities, to prevent clogging of floor heating pipes



Figure 8: High-level water inlet design, which helps prevent sediment and impurities from clogging the heating pipes.

6. TROUBLESHOOTING

Refer to the table below for common issues and their potential solutions.

Problem	Possible Cause	Solution
No flow or low flow in a loop	Closed flow meter valve, air in the loop, clogged pipe/adaptor	Open flow meter valve, purge air from the system, check for blockages and clean if necessary.
Uneven heating across zones	Unbalanced flow rates	Adjust visual flow meters to balance flow to each loop.
Water leakage at connections	Loose connection, damaged O-ring/sealant	Tighten connections, inspect and replace O-rings or reapply thread sealant.
Automatic air vent drips	Dirt/debris in vent, vent malfunction	Clean the air vent. If dripping persists, replace the vent.

7. SPECIFICATIONS

Feature	Detail
Model	167638-zhengmao
Size	3 LOOP
Material	SUS 304 Stainless Steel
Main Pipe Thread	1" NPT
Adapter Size	1/2" (for 12MM ID 16MM OD PEX)
Flow Meter Range	0-5 Liters per minute
Dimensions (L x W x H)	16.3 x 14.76 x 2.72 inches
Item Weight	10.58 pounds (4.81 Kilograms)
Application	Hydronic Radiant Floor Heating (Not for potable water)

8. WARRANTY AND SUPPORT

Specific warranty information for this product is not provided in the available data. For warranty claims, technical support, or further assistance, please contact FAHKNS customer service through the retailer where the product was purchased or visit the official FAHKNS website.