(RHT Wood-Fired) Startup Guide

1. Layout and PEX Installation: Begin by reviewing your loop layout and installing the PEX tubing. Start from the furthest circuit away from the mechanical location and work your way to the closest circuit.

- A link on how to install your pex in a slab on grade system: Creating a Story Pole.
- A link on how to install your pex in a staple up system: Staple Up Installation
- A link on how to install your pex in a floor panel system: RHT Floor Panel System

2. Manifold Mounting: Mount your manifolds on the wall and connect the PEX tubing to the manifold ports. Ensure that the supply/return balancing valves are fully open. You can refer to this document for more details: Manifold Installation Guide

Note: satellite manifolds in a radiant heating system are a secondary distribution point for the heating system, typically located away from the mechanical room in an access panel. It acts as a hub to distribute heated water to different zones or areas within a building. This setup is often used in large or complex systems where the distance between the main manifold and the heating zones would result in excessive lengths of tubing. Below is an example of a satellite manifold both before and after the concrete is poured.

Note: Please remove the black locking ring depicted in the image below, as it will prevent you from fully opening the supply side Allen valves.

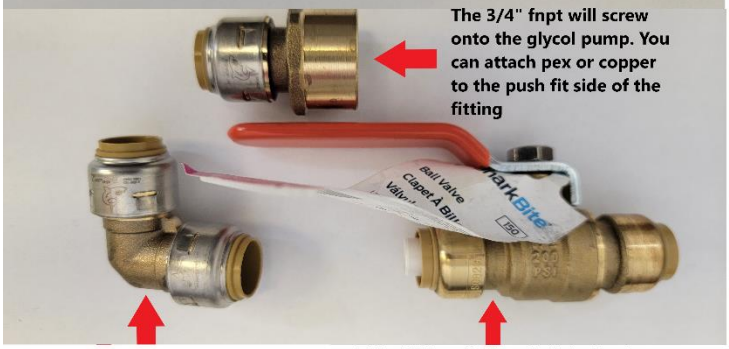
3. Pressure Testing: Perform a pressure test on your system, pressurizing it up to 50 PSI. It's normal for the system to drop 5 PSI overnight. If it drops to 0 PSI, you likely have a leak or need to open the supply and return valves on the manifold. To locate the leak, spray the manifold with soapy water. It is recommended You can find more information on pressure testing here: Pressure Test Instructions

4. Pump Panel Installation: Hang your prefabricated pump panel on the wall using the predrilled holes in the panel. It is best to have at least two people for this part of the installation. We recommend adding additional fasteners if your panel width is longer than three feet. Additional framing materials can be added to provide support as needed.

5. Boiler Connection: Connect the supply and return lines from your boiler to the prefabricated pump panel. Please note the dashed box in the pump panel diagram will not be provided by the prefabricated pump panel.

6. Connect Manifold to Pump Panel: Connect your manifold to the pump distribution panel using copper or PEX piping. The threaded fittings below will attach to the supply/return ball valves on your manifold, while the straight couplers will connect to the supply/return lines on the pump distribution panel.

This is how you will receive your glycol fittings



The 3/4" fnpt will screw onto the glycol pump. You can attach pex or copper to the push fit side of the fitting

This 1/2" to 1/2" push fit elbow will allow you to make a 90° turn into the 1/2" ball valve.

This 1/2" to 1/2" push fit ball valve w attach to your water make up on you pump distrabution panel.

7. Air Purging Procedure: Connect a hose to the return ball valve drain of a specific zone and run it to a bucket placed outdoors where it can overflow. Orient the valves for air purging as depicted in the following image.

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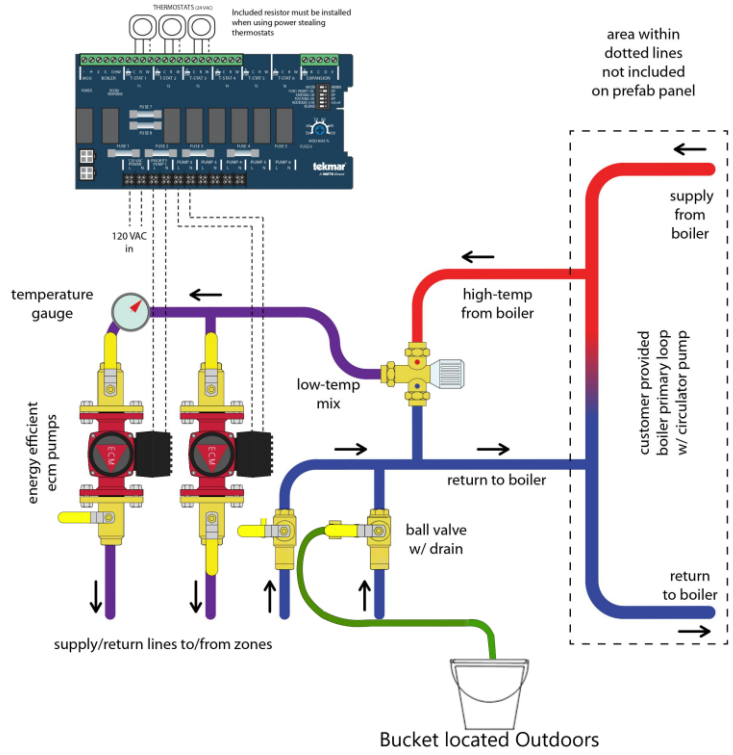

8. Zone Purging: When no more air bubbles are observed, wait an additional five minutes to be certain no air is coming down the line. Once there is no more air in each zone, close the hose drain valve and move onto purging the next zone until all zones are purged.

9. Valve Adjustment: Set all valves to their operating positions as shown in Pump Distribution Panel diagram.

10. Wiring: Wire the system following the recommended wiring diagram. It's advisable to have an electrician handle any high voltage wiring. The recommended wiring diagram can be found here: Pump Panel Diagram

11. Boiler Commissioning: Finally, refer to the boiler installation manual for guidance on commissioning the boiler.

If you have any questions, please do not hesitate to reach out at 866-361-4782.