AquaHeat ProLock Manifold

Installation Instructions- 76000 series manifold

General Guidelines:

- AquaHeat manifolds can be mounted in any position necessary. However, the automatic air vent provided must be mounted vertically, facing up, to be operative.
- Manifolds use a unique three-part brass PEX connecting system. Be certain to install the manifold nut, retaining ring, and compression ring over the tubing end before making up to the barbed connection. Be certain to face the beveled side of the retaining ring towards the crimp ring. Failure to seat properly will cause leakages in operation.

Application

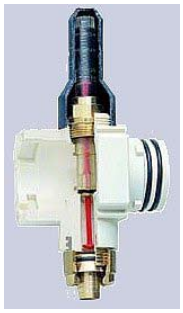
Prolock is a modular plastic manifold for closed loop radiant heating applications. Manifolds assemble very quickly via a 1//8 turn, locking each module together.

Starter kit includes (2) mounting brackets, (2) 1-1/4" threaded modules, (2) air vents, (2) end modules, and (2) thermometers.

Features

- Return modules include balancing valve with flow meter
- Supply modules includes isolation valve
- 1/8 turn connection of additional manifold blocks can accommodate additional loops

Technical Data	
Maximum water temperature	170°F
Maximum operating pressure	72 psi
Maximum flow per loop	1.05 gpm
Flow meter range	0-1.05 gpm
Manifold material	Plastic
Allowable Fluid	Water or a mixture of water and propylene/glycol
Acceptable tubing	SDR 9



Components	
Prolock Description	Part Number
Starter Kit	76040
Supply Module	76042
Return Module	76045
Locking Key Red	76054
Locking Key Blue	76056

Manifold Fittings	
3/8" - 2 required	76020
1/2" - 2 required	76021
5/8" - 2 required	76022
3/4" - 2 required	76023

Optional Components	
2-wire ProZone Actuator 24VA DC NO	76020
2-wire ProZone Actuator 24VA DC NC	76021

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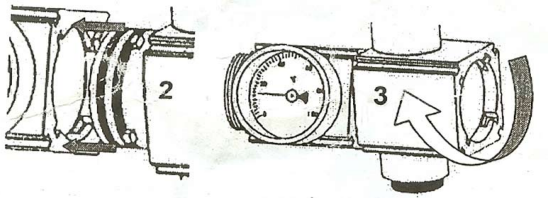
Assembling the ProLock modular manifold (P/N 76040)

Note: Prior to assembly, inspect and clean any debris from O-Rings and insertion end of each module.

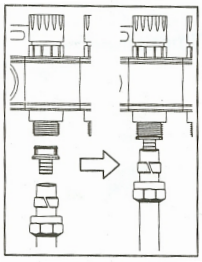
1. Slide one locking key into each module (Red is supply and Blue is return)
2. Align tabs to adjoining slots of the other module and push together until they ar firmly seated.
3. Turn the module 1/8 of a turn until they click into place and are flush.



4. Repeat for remaining modules.
5. When fully assembled, slide locking keys between modules to prevent accidental opening.
6. Insert thermometers into threaded manifold supply and return modules.
7. Manifold assembly should be mounted a minimum of 18" above floor.

Assembly

The ProLock PEX fitting (Part # 76020 series) consists of three pieces – insert fitting, split ring and nut. Prior to assembly of the fitting, the tubing must have a clean and perpendicular cut.



1. Slide nut over PEX tubing followed by split ring.
2. Push insert fitting completely into manifold por
3. Tighten the nut onto the manifold.

Adjusting the flow rate for Manifold loops

If the manual shut-off valve adjustment cap instead of an actuator is used in the application, please follow the balancing steps below

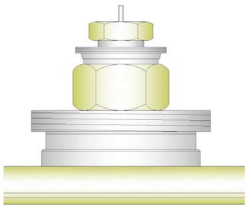
System Balancing

1. With manifold circulator on, fully open supply shut-off knobs.
2. Remove black protective cap off the return manifold to reveal the flow meter. The red piston indicator will move up and down in response to the flow.
3. Rotate flow indicator clockwise or counter-clockwise to achieve the appropriate flow for the loop. Refer to table flow rate adjustment below.

Purging the System

When purging the system it is recommended to purge one loop at atime to ensure efficient removal of air from each loop. The pex tubing can be purged by one of two methods:

1. Traditional stop and drain valve at the boiler return
2. a stop installed after the return manifold and purging occurs thru the opened purging valve.



Mounting of Zone Actuator (optional)

Note: Zone actuators should not be installed in an upside down position

1. Remove white shut-off cap from supply manifold to reveal valve stem.
2. Tighten gray adapter with stem to the valve stem.
3. Push zone valve on to adapter until a click is heard.

Correlation of flow rate to setting as noted on black protective cap.

Setting	Flow Rate (GPM)
1	0.15
2	0.31
3	0.47
4	0.68
5	1.05

Table 2 - Flow Rate Adjustment

Representative

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