

300 N. Opdyke Rd. Auburn Hills, MI 48326

## M-8330 STAINLESS MANIFOLD SERIES

### This is the Installation Reference Guide for the M-8330 Precision<sup>™</sup> Manifold Series. The full instructions can be found at www.legendhydronics.com or by calling 866-752-2055

### Assembly

A complete manifold consists of both a **Supply** and **Return Header**, each with a **Precision Adapter Assembly** (M-8330P manifolds) or **End Plug**, **Header Isolation Valve** and **Manifold Mounting Brackets**. These components are normally shipped together, loosely pre-assembled except the Header Isolation Valves, requiring tightening only. Follow steps 2 through 5 in the M-8330 Full Installation Guide, as needed if assembly is required for reconfiguration, replacement, etc. The Headers in the M-8330 Manifold Series are stainless steel with built-in loop isolation valves (supply & return) and flow gauges (supply only)—that require no assembly or tightening.

#### **Balance Valve Operation**

Remove the protective, red, plastic covers on each gauge (1). The gauge can be adjusted by turning clockwise to close or counter-clockwise to open (2). The flow meter will indicate the flow as the adjustments are being made. The flow rate of each loop is indicated on its corresponding flow gauge, located on the top of the supply header. The red colored indicator rests at the top of the gauge with no flow and lowers down the scale as the flow increases (3). The total range of the Balancing Valve from fully open to fully closed, is 2-1/2 to 3 turns. Be careful to not over tighten the valve when closing. No tools should be used to turn the flow meter. Adjust by hand only.

#### **Circuit Isolation Valve Operation**

The Circuit Isolation Valves on each loop of the return header can be fully opened by turning the large blue handle counter-clockwise until it stops (4).

### **Connecting the Radiant Tubing**

Manifold tube connectors are not included with the manifold; they are sold separately. Use the appropriate tube connectors for the type and size (below a through g/h) of radiant tubing.

**Note:** For complete list of tube connector sizes and tubing options, contact your local Legend Hydronics supplier or visit www.legendhydronics.com

#### For 5/16", 3/8", 1/2" & 5/8" radiant tubing (Tube & Composite Tube Connectors) connections.

- a) Ensure that the tubing is cut squarely using a proper tube cutter.
- b) Slide the hex nut (with the threads towards the manifold) onto the tubing.
- c) Slide the split ring washer onto the tubing.
- d) Insert the barbed end adapter into the tubing until flush with the end of the tubing.
- e) Place the end adapter into the selected port ensuring that the o-ring is seated properly into the manifold port.
- f) Hand-tighten the hex nut onto the male threads of the manifold port while supporting the tube and keeping the end adapter square in the port. It should turn on smoothly as the fitting is aligned.
- g) Once the hex nut is hand tight, use a 1-1/8" (29 mm) wrench and turn it no more than 1/2 turn.

#### CAUTION: Do not over tighten, as this may destroy the integral o-ring.

Do not use thread sealant tape or paste on these threads. These are parallel threads; sealing is achieved by the tapered brass threading and integral o-rings.

#### To connect 3/4" radiant tubing, follow the steps above (a through g) and add the included 3/4" adaptor; or see the Full Installation Guide.

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# **Installation Reference Guide**









