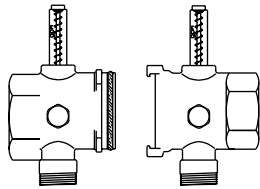




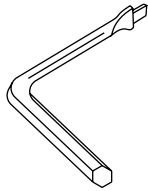
1" QickZone® Modular Brass Manifold Installation Instructions

Parts List

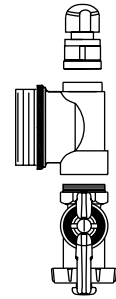
QHCKMKIT5



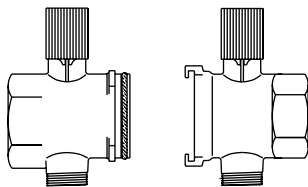
1" Manifold Supply End Modules with Lock Shield and Flow Meter



QHMODAK: Adjustment Key



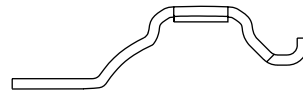
QHMAVKIT5: Manual Air Vent



1" Manifold Return End Modules with Manual Shut Off

ZURN LOBBY	ZURN KITCHEN	ZURN OFFICE
ZURN M. BEDROOM	ZURN DINING ROOM	ZURN LAUNDRY ROOM
ZURN BEDROOM 1	ZURN LIVING ROOM	ZURN GUEST ROOM

QHLABELS: Labels



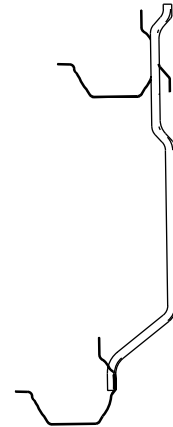
(4) Collar Halves



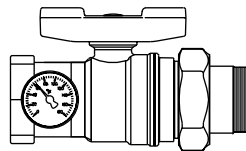
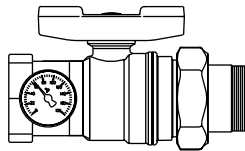
(4) M6x1 Bolts



(8) Foam Adhesive Strips



(2) Wall Brackets with Collar



QHMBVKIT5:

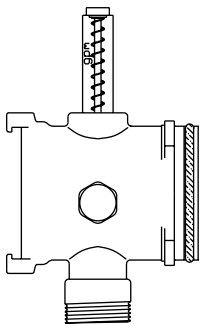
Ball Valves with Thermometers

(1) Red Handle

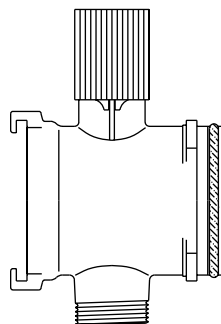
(1) Blue Handle

QHMODMB: Mounting Bracket

QHMCMM



Supply



Supply

Manifold Supply/Return Central Modules
Supply with Lock Shield and Flow Meter
Return with Manual Shut Off

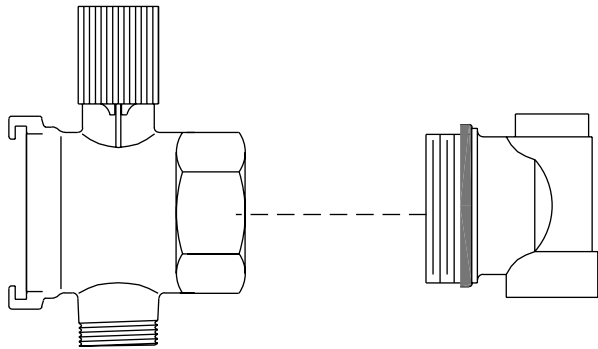
Form No. ZPFN184	Date: 2/20/09
C.N. No. 99719	Rev.

1" QickZone® Modular Brass Manifold Installation Instructions

QHMAVKIT5 and QHMBVKIT5 Assembly

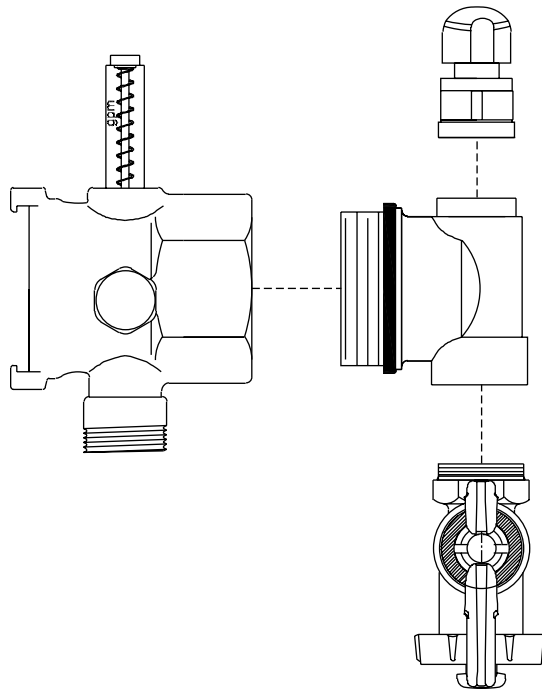
Step 1: Lubricate O-rings and rubber with silicone grease.

Step 2: Thread **Self-Sealing Endpiece** into the female end of the **Manifold Supply and Return End Modules**.



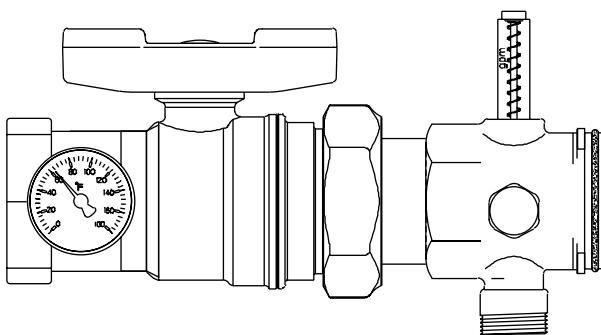
Step 3: Thread **Air Vent** into the top of the **Self-Sealing Endpiece**.

Step 4: Thread **Drain Valve** into the bottom of the **Self-Sealing Endpiece**.



Step 1: Thread **Red Handled Ball Valve** into **Manifold Supply End Modules**.

Step 2: Thread **Blue Handled Ball Valve** into **Manifold Return End Modules**.

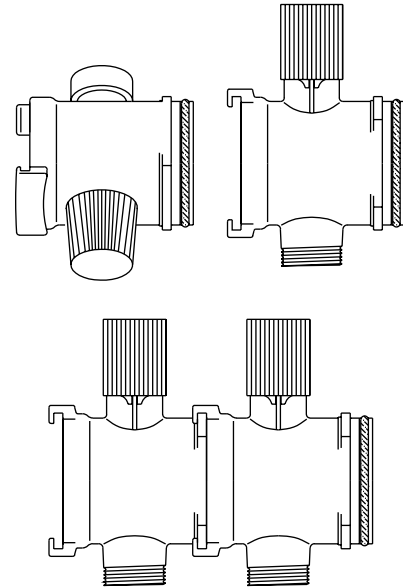


1" QickZone® Modular Brass Manifold Installation Instructions

QHMCM Assembly and Mounting the Manifold

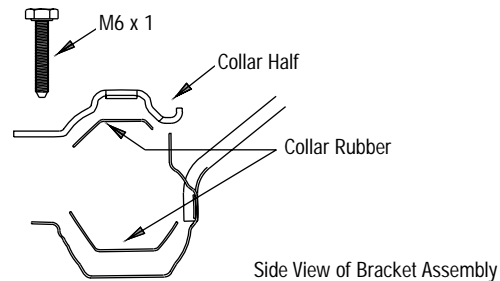
QHMCM Assembly

- Step 1:** Lubricate O-rings and rubber seals with silicone grease.
- Step 2:** Attach additional **Central Return and Supply Modules (QHMCM)** to **Supply and Return End Modules**.
- Step 3:** Align male and female bayonet fittings 90° apart.
- Step 4:** Gently push the two modules together until both shoulders touch.
- Step 5:** Rotate one module 90° to engage bayonet fitting.
- Step 6:** Repeat procedure for all modules.



Mounting the Manifold

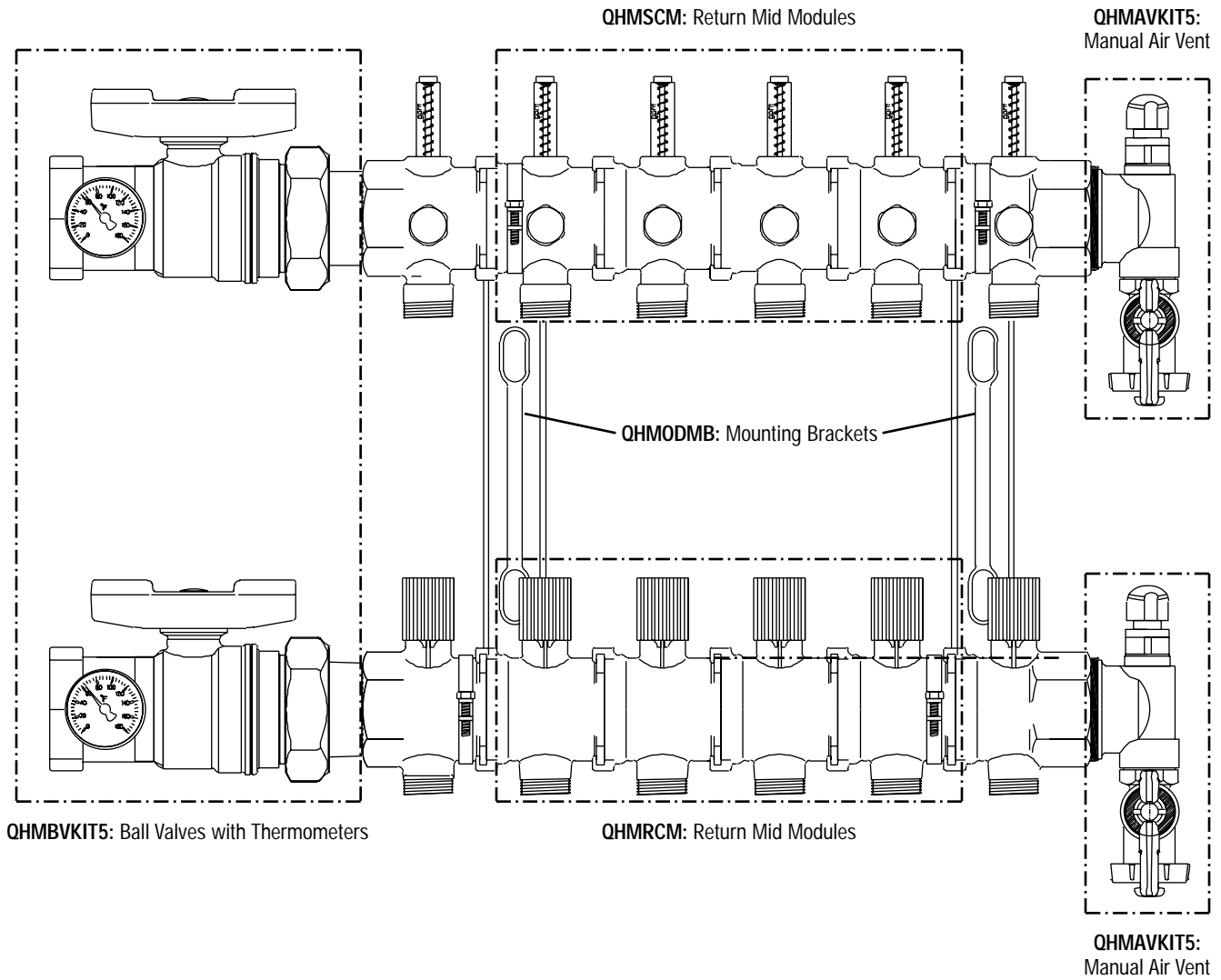
- Step 1:** Attach **Manifold Wall Bracket** to the wall.
- Step 2:** Place complete **Return Manifold Assembly** on lower **Manifold Bracket Collars**.
- Step 3:** **Bayonet fitting** must rest on **Manifold Bracket Collars**.
- Step 4:** Hook loose **Collar Half** into the **Manifold Wall Bracket Collar**.
- Step 5:** Thread **M6 x 1 Bolt** into **Collar Half** and tighten securely.
- Step 6:** Repeat the above procedure for the complete **Supply Manifold Assembly**.



1" QickZone® Modular Brass Manifold

Installation Instructions

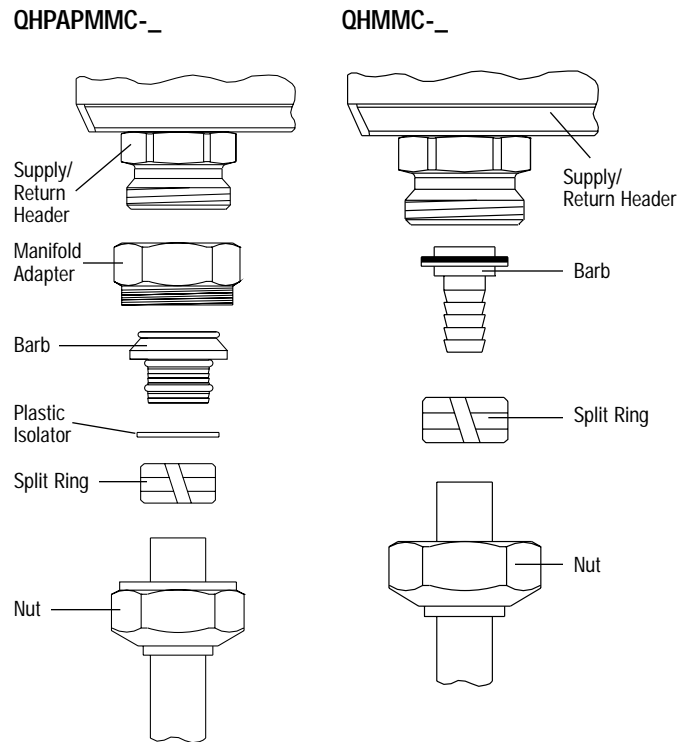
Completed Manifold



1" QickZone® Modular Brass Manifold Installation Instructions

Attach Tubing To The Manifold

- Step 1:** Determine the appropriate manifold connector (QHMMC_) to be used. (QHMMC2-3/8" Nom. Tubing, QHMMC3-1/2" Nom. Tubing, QHMMCJ-5/8" Nom. Tubing, QHMMC4-3/4" Nom. Tubing.) If using Alumatic® Tubing, use manifold connector (QHPAPMMC-). (QHPAPMMC2-3/8" Alumatic® Tubing, QHPAPMMC3-1/2" Alumatic® Tubing, QHPAPMMCJ-5/8" Alumatic® Tubing, QHPAPMMC4-3/4" Alumatic® Tubing.)
- Step 2:** Cut the tubing to the appropriate length.
- Step 3:** Slide the nut (with the threads toward the manifold) onto the tubing.
- Step 4:** Slide the split ring over the tubing.
- Step 5:** Insert the barb into the tubing. The QHPAPMMC requires the plastic isolator to be put on the barbed fitting before inserting into the tubing. It also requires the manifold adapter to be threaded onto the header.
- Step 6:** Attach tubing to the appropriate header and circuit. Tighten the nut.
- Step 7:** Repeat procedure for all remaining loops.



1" QickZone® Modular Brass Manifold Installation Instructions

Installing Air Test Kit

Step 1: Assemble the Air Pressure Test Kit (QHAIRT) as shown, using Teflon® tape (not included) on all the threads. Then attach the Air Pressure Test Kit (QHAIRT) to the 1" supply header ball valve.

Step 2: Close the 1" return header ball valve.

Step 3: Close and cap the fill/drain valves on the supply and return headers.

Step 4: Close both air vents.

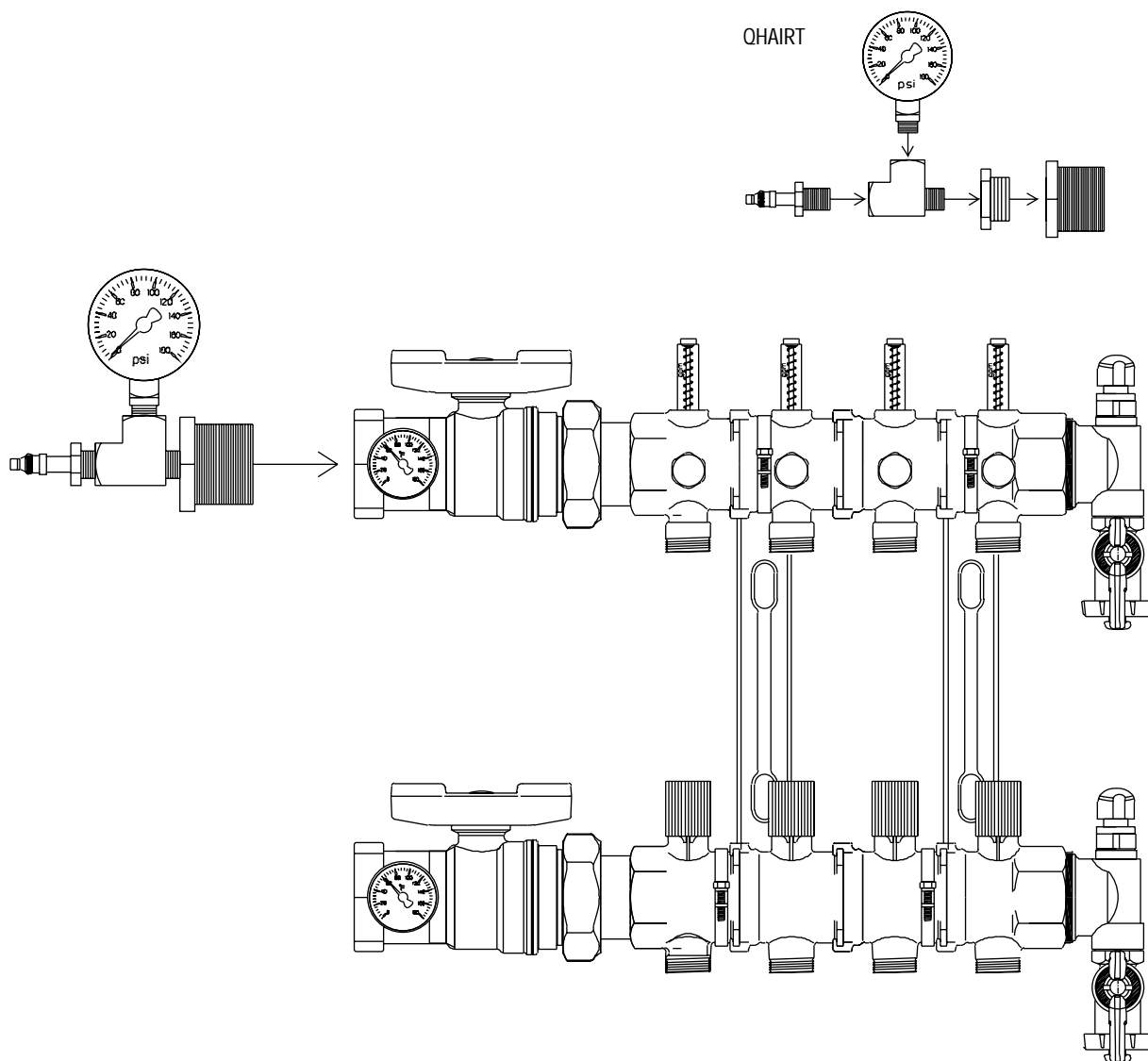
Step 5: Fully open (counterclockwise) all white isolation valves on the return header.

Step 6: Fully open all circuit balancing valves on the supply header by turning the Allen screws located under the red caps counterclockwise.

Step 7: Open the 1" supply manifold ball valve and fill the system with air **not to exceed 100 PSI**.

Step 8: Check the system for leaks using an ultra sonic leak detector or with a solution of 2 ounces of green Ultra Palmolive® Original scent concentrated dishwasher liquid in one gallon of potable water.

Step 9: Reduce the pressure to 50 PSI during the concrete pour and monitor the pressure during the pour.



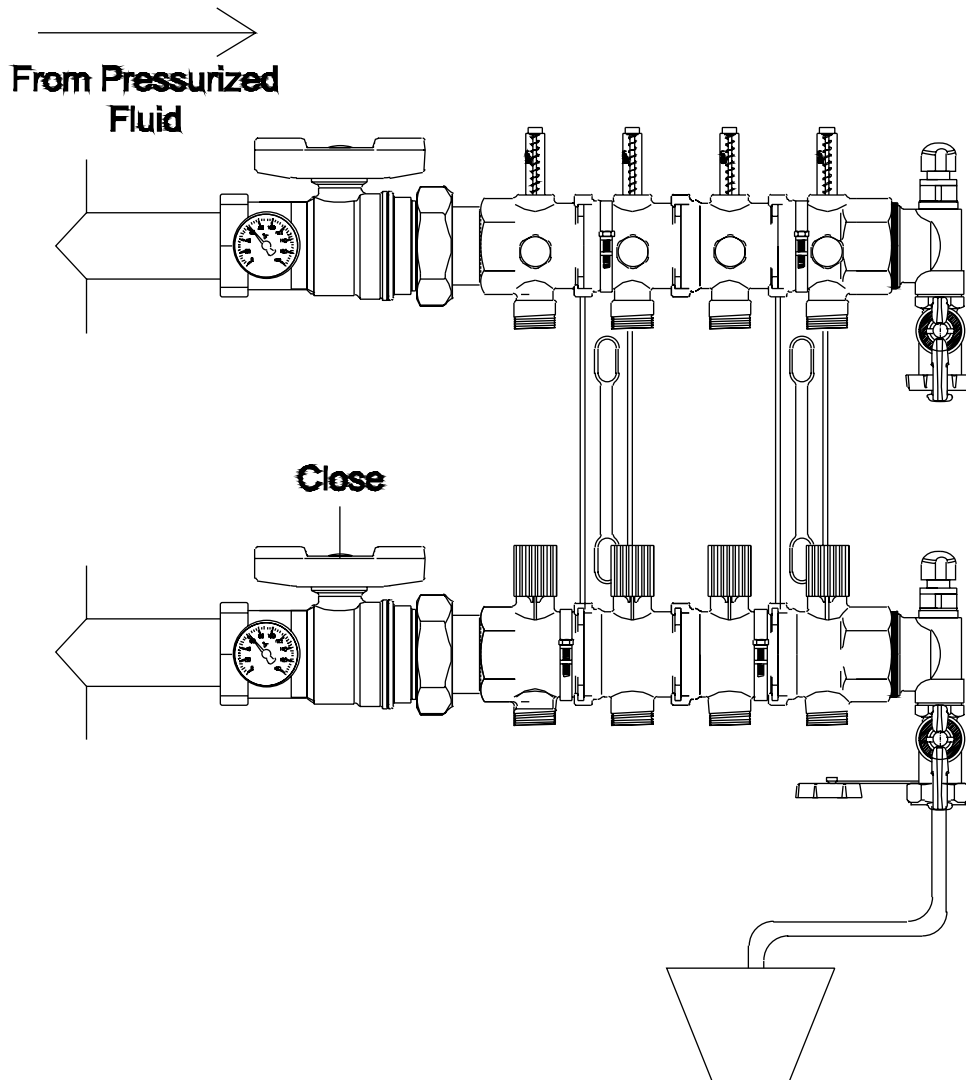
1" QickZone® Modular Brass Manifold Installation Instructions

Filling/Purging The Loops

From Pressurized Fluid Entering Through the Supply Header Ball Valve

Note: If filling/purging the loops with pressurized fluid entering through the drain valve on the supply header, go to the following page.

- Step 1:** Close the white loop isolation valves (clockwise) on each loop of the return header. Fully open (counterclockwise) each circuit balancing valve on the supply header.
- Step 2:** Close and cap the fill/drain valve on the supply header.
- Step 3:** Close the 1" ball valve on the return header and close both air vents.
- Step 4:** Attach a hose to the fill/drain valve on the return header and place the other end in a bucket.
- Step 5:** Open the 1" ball valve for the supply header.
- Step 6:** Start the pressurized fluid.
- Step 7:** Open one of the white loop isolation valves (counterclockwise) on the return header.
- Step 8:** Allow fluid to flow until no more air is seen in the bucket.
- Step 9:** Close the white loop isolation valve.
- Step 10:** Repeat Steps 7-9 for all remaining loops.
- Step 11:** Stop the pressurized fluid. Shut off the drain/fill valve on the return header; remove the hose and cap the valve.
- Step 12:** Open the 1" ball valve for the return header and proceed to Circuit Balancing.



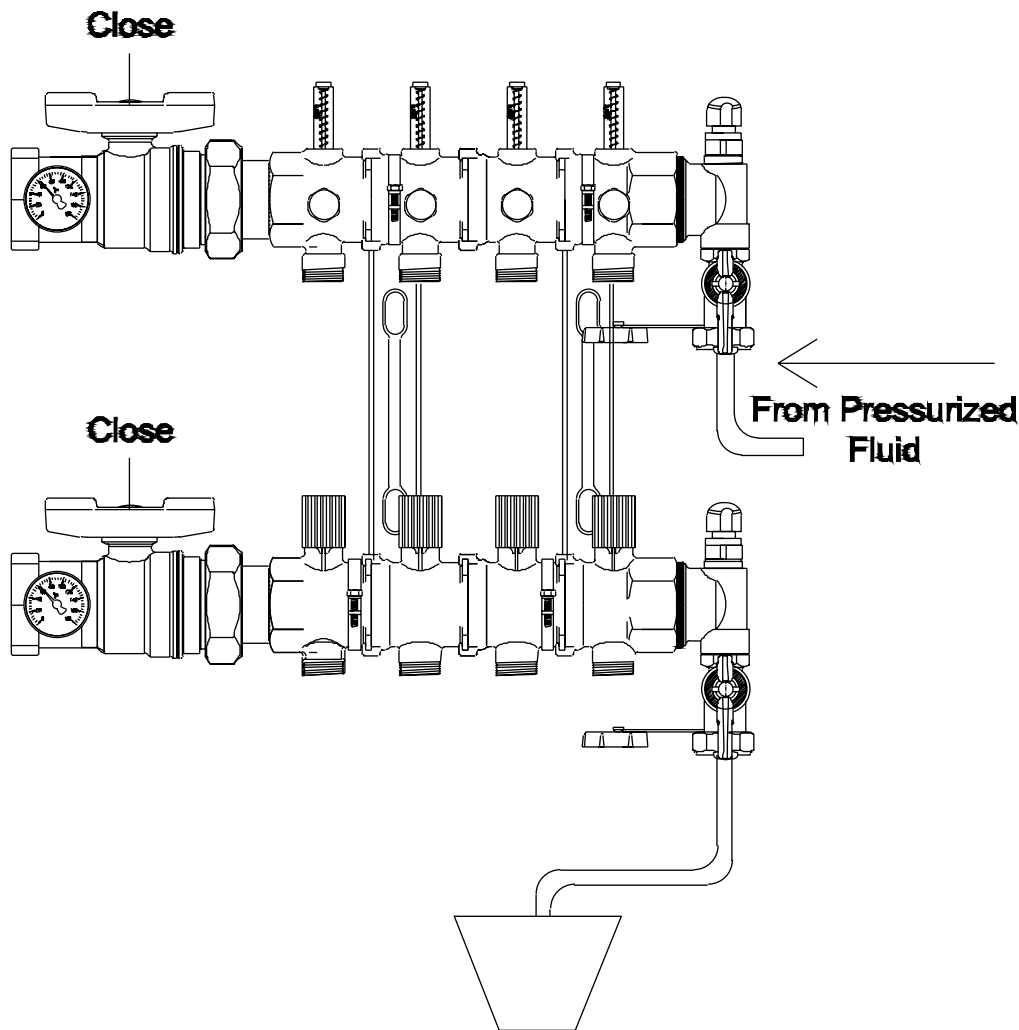
1" QickZone® Modular Brass Manifold

Installation Instructions

Filling/Purging The Loops

From Pressurized Fluid Entering Through the Drain Valve on the Supply Header

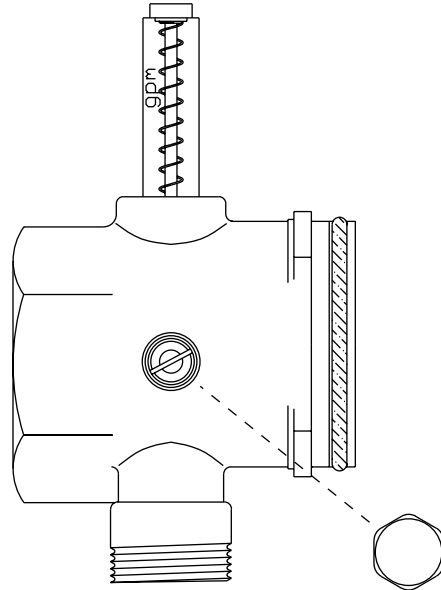
- Step 1:** Close the 1" ball valves on the supply and return headers. Close the white loop isolation valves (clockwise) on each loop of the return header. Close both air vents. Fully open (counterclockwise) each circuit balancing valve on the supply header.
- Step 2:** Confirm that the fill/drain valve on the supply manifold is closed and attach the pressurized fluid hose to the fill/drain valve on the supply header.
- Step 3:** Attach a hose to the fill/drain valve on the return header and place the other end into a bucket.
- Step 4:** Open the valve on the supply fill/drain valve.
- Step 5:** Start the pressurized fluid.
- Step 6:** Open the fill/drain valve on the return header.
- Step 7:** Open one of the white loop isolation valves (counterclockwise) on the return header.
- Step 8:** Allow fluid to flow until no more air is seen in the bucket.
- Step 9:** Close the white loop isolation valve.
- Step 10:** Repeat Steps 7-9 for all remaining loops.
- Step 11:** Stop the pressurized fluid; shut off the drain/fill valves on the supply and return headers. Remove the hoses and cap the valves.
- Step 12:** If not already done, finish piping the manifold to the system.



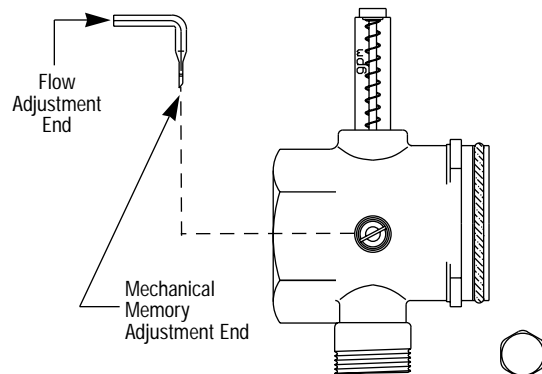
1" QickZone® Modular Brass Manifold Installation Instructions

Circuit Balancing

- Step 1:** Determine the flow rate needed for each circuit.
- Step 2:** Fully open (counterclockwise) all isolating valves on the **Return Modules**.
- Step 3:** Remove the lock shield caps (counterclockwise) on each of the **Supply Modules**.



- Step 4:** Turn on the circulating pump.
- Step 5:** Using the **Adjustment Key**, completely unscrew (counterclockwise) the mechanical memories on all **Supply Modules**.
- Step 6:** Using the **Adjustment Key**, completely open (counterclockwise) the lock shield valves on all **Supply Modules**.
- Step 7:** Slowly close the **Lock Shield Valves** of each circuit until the desired flow rate is obtained on the flow meters.
- Step 8:** Repeat the balancing procedure if necessary when the initial balancing is completed on all **Supply Modules**.
- Step 9:** Using the **Adjustment Key**, tighten the mechanical memories on all **Supply Modules**.
- Step 10:** Reinstall **Lock Shield Caps**.



1/4 Turn Opening	Cv = 0.14
1/2 Turn	Cv = 0.30
3/4 Turn	Cv = 0.46
1 Turn	Cv = 0.56
1-1/4 Turns	Cv = 0.65
1-1/2 Turns	Cv = 0.73
1-3/4 Turns	Cv = 0.81
2 Turns	Cv = 0.96
Fully Open	Cv = 1.01

1" QickZone® Modular Brass Manifold

Installation Instructions

Actuator Mounting Instructions (Optional)

Step 1: To remove top white plastic cap, turn cap counter-clockwise until completely open (see Illustration 1).

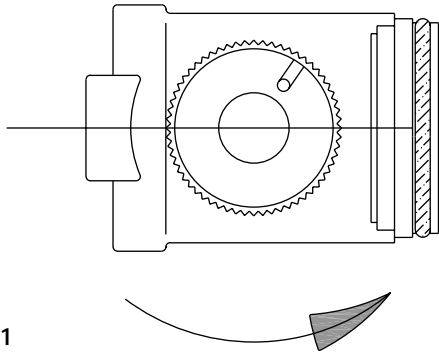


Illustration 1

Step 2: With a flat ended screwdriver, pry top off using clip on Module as a fulcrum point (see Illustration 2).

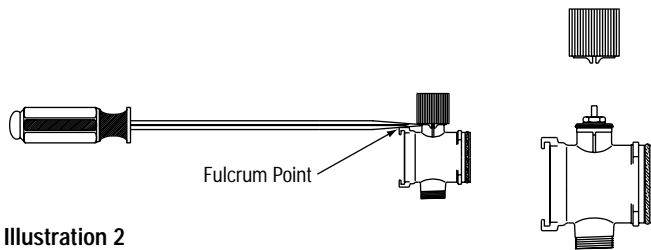


Illustration 2

Step 3: Snap **Plastic Fitting** onto **Return Module**. Line up the notch in the **Plastic Fitting** with the tab on the **Return Module**.

Place **Actuator** on **Plastic Fitting** and turn one click. (Be sure to place the **Actuator** where it will be straight after turning.)

Push in Red Button (see Illustration 3).

Warning: Red Button must be pushed for proper operation.

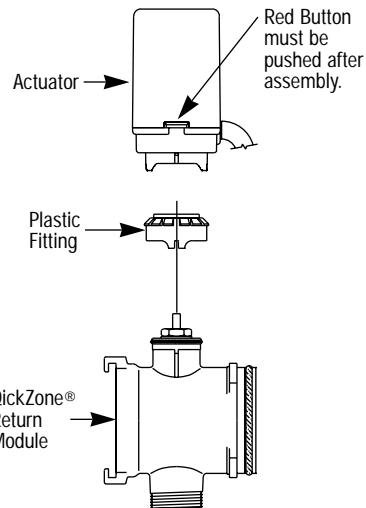
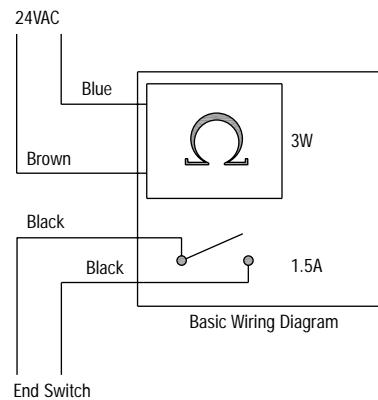


Illustration 3

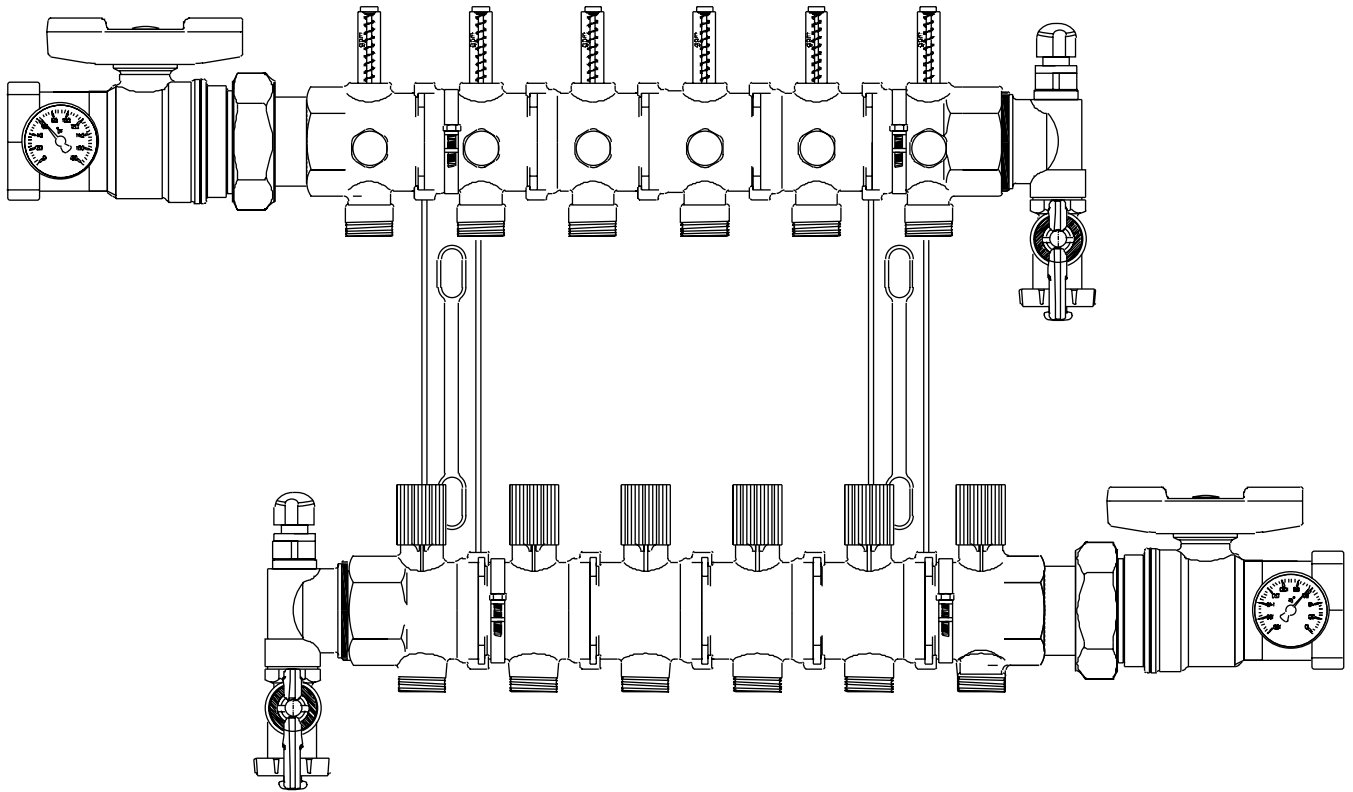


Note 1: Actuator may take up to ten minutes to open on initial startup.

Note 2: Use black wires only when the end switch is needed.

1" QickZone® Modular Brass Manifold Installation Instructions

Advanced Installation Techniques Using Reverse/Return Manifolds





ZURN PEX® PLUMBING AND RADIANT HEATING SYSTEMS

1801 PITTSBURGH AVENUE, ERIE, PA, U.S.A. 16502 PHONE: 800/872-7277 FAX: 800/209-2148 www.zurn.com

IN CANADA:

ZURN INDUSTRIES LIMITED 3544 NASHUA DRIVE, MISSISSAUGA, ONTARIO L4V 1L2 PHONE: 905/405-8272 FAX: 905/405-1292