



FILL/PURGE/PRESSURIZE HYDRO SMART INTEGRATOR AND ZONE PANELS

STEP 4



DO NOT RETURN TO STORES.
For Damaged Product or Repairs,
call Hydro Smart at 763-331-3066
Mon – Fri: 8 AM - 5 PM

**WARNING**

Do not plug in control cord until all fluids are introduced and thermostat connection(s) are finished.

DAMAGES - If unit is damaged, do not return to store. Please call 763-331-3066 for troubleshooting, returns, or replacement parts.

STEP 1 – Mount Integrator Panel onto wall with four 1/4" x 1 - 1/2" Lg wood screws. Utilize the slots on the top and bottom of integrator panel and zone panel (When zoning by Pumps/Valves)

STEP 2 – Install Supply and Return lines to and from panel to boiler. Use Type L Copper or Oxygen Barrier PEX tubing.

STEP 3 – Install Supply and Return lines to and from panel to emitters (Manifold(s)). Connect integrator panel to zone panel (When zoning by Pumps/Valves) Use Type L Copper or Oxygen Barrier PEX tubing.

STEP 4 – Introduce fluids into system and purge air out of system.

STEP 5 – Install low voltage thermostat (Visit www.hydro-smart.com for options)

STEP 6 – Plug in cord and activate thermostat. Acknowledge the following:

- A. Both circulator pumps running.
- B. Boiler energized and providing heat.
- C. Observe gauges for performance of system (Pressure & Temperature).

WHAT YOU'LL NEED:

- ☐ 1/2 HP Transfer Pump
- ☐ 5 or 10 Gal. Bucket
- ☐ 3 – (6ft) Washing Machine Hoses
- ☐ System Fluids (Distilled Water/Propylene Glycol)*

**NOTE: 100 feet of 1/2" tubing will require approx. 1 gallon of fluids*



SYSTEM OVERVIEW

PANEL/SYSTEM

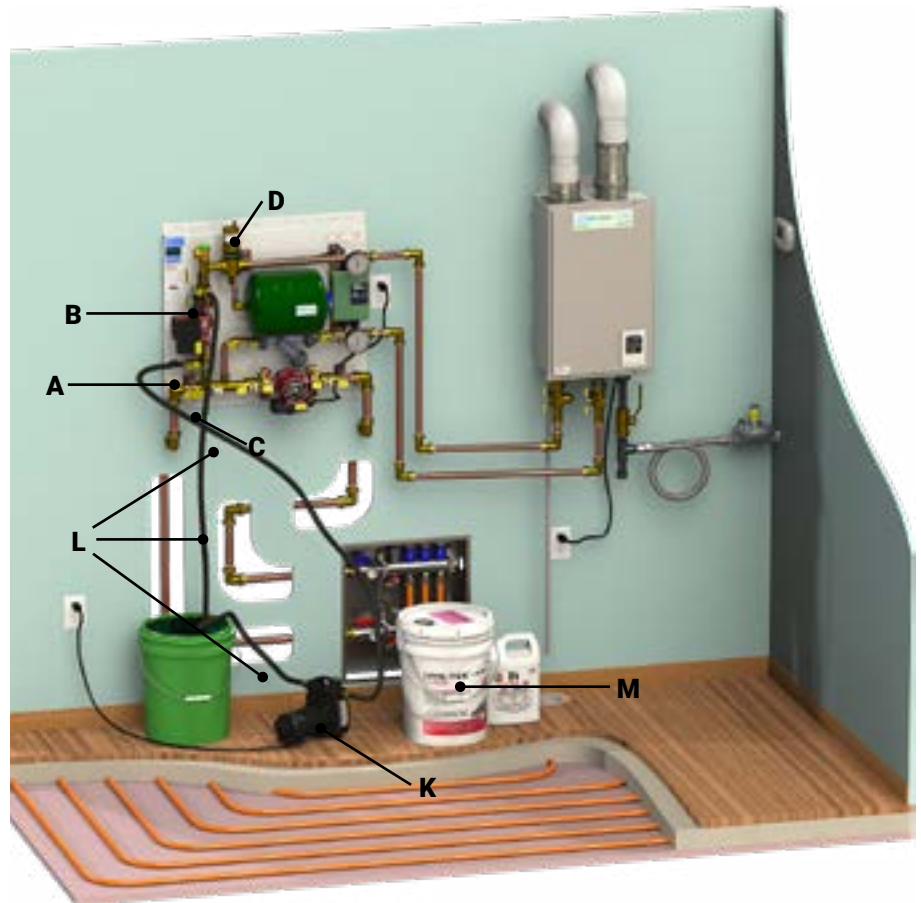
- A ENTRY FILL
- B EXIT FILL
- C PURGE TEE
- D AIR ELIMINATOR

MANIFOLD

- E RETURN SHUTOFF BALL VALVE
- F SUPPLY SHUTOFF BALL VALVE
- G LOOP VALVES
- H FLOW RATE METERS
- I RETURN AIR ELIMINATOR
- J SUPPLY AIR ELIMINATOR

SYSTEM EXTRAS

- K 1/2 HP TRANSFER PUMP
- L WASHING MACHINE HOSES (3 - 6FT)
- M SYSTEM FLUIDS (DISTILLED WATER/ PROPYLENE GYCOL)



MANIFOLD

PANEL DETAILS



A ENTRY FILL



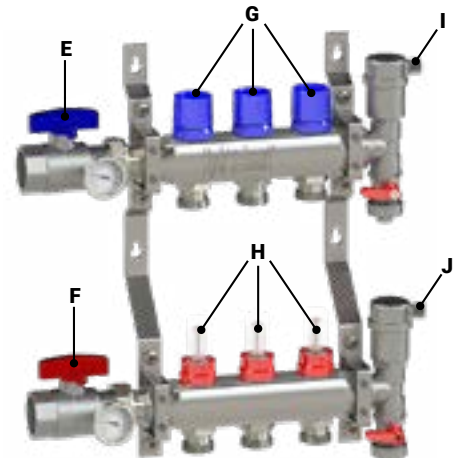
B EXIT FILL



C PURGE TEE



D AIR ELIMINATOR



BEFORE FILLING THE SYSTEM ON THE SYSTEM

1. Connect Hoses to the System

Attach Hose 1 to the OUT on the TRANSFER PUMP and connect to ENTRY FILL (A)

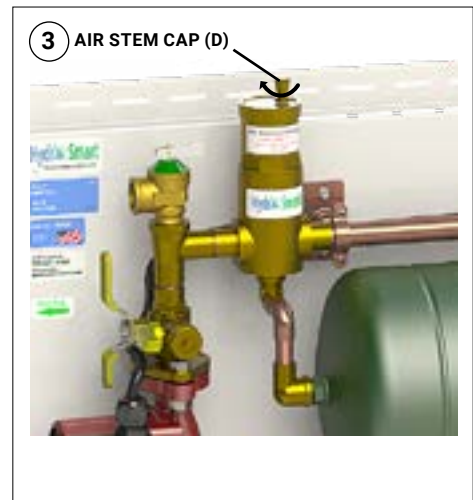
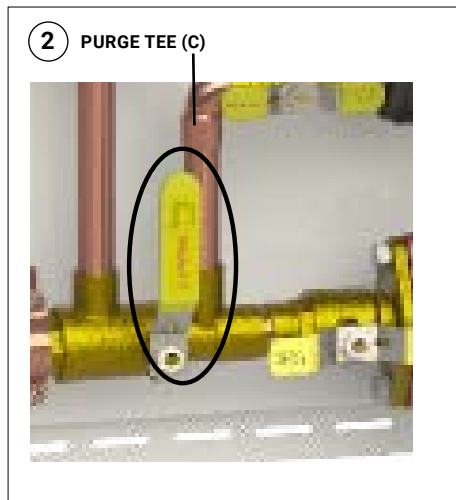
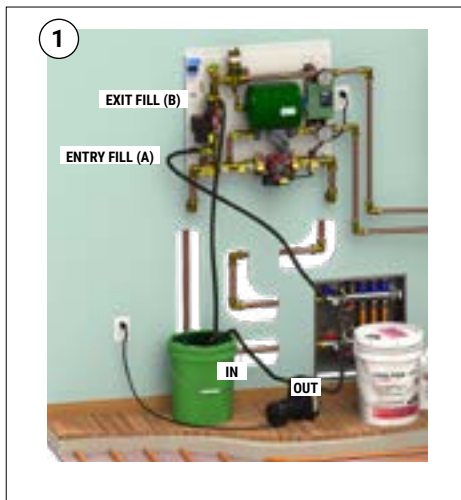
Attach Hose 2 to the IN on the TRANSFER PUMP and run into the bucket

Attach Hose 3 to the EXIT FILL (B) and run into the bucket

Fill 5 gallon bucket with Distilled Water/Propylene Glycol

2. Make sure the PURGE TEE (C) is in the vertical position

3. Close AIR ELIMINATOR (D) by turning air stem cap clockwise



ON THE MANIFOLD

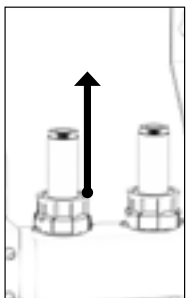
4. Verify all FLOW METERS (RED/H) are fully OPEN

(Pry locking ring up and turn CCW until fully open then push down locking ring to lock into position)

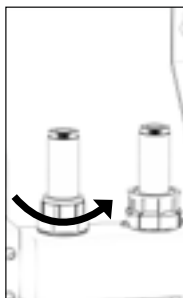
5. Verify all LOOPS (BLUE/G) are CLOSED on the manifold by turning CW

6. Verify AIR ELIMINATOR VALVES (I & J) are CLOSED (CW)

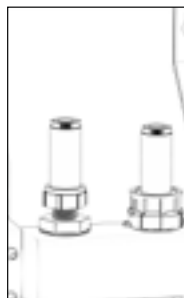
7. Verify RETURN AND SUPPLY SHUTOFF BALL VALVES (E & F) are in the OPEN position



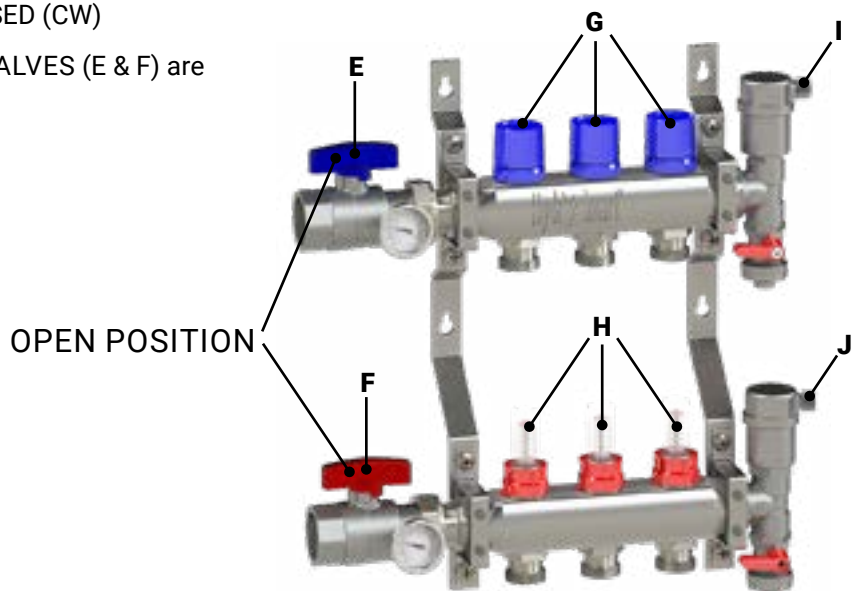
Remove red locking cap.



Twist flow meter counter clockwise to fully open flow meter.



Open Position



FILLING THE SYSTEM

*The number of loops will depend on your system.

PURGING

1. OPEN the FIRST LOOP* by turning Counter Clockwise (CCW) and turn on TRANSFER PUMP

NOTE: Each loop will take approx. 2-3 minutes to purge

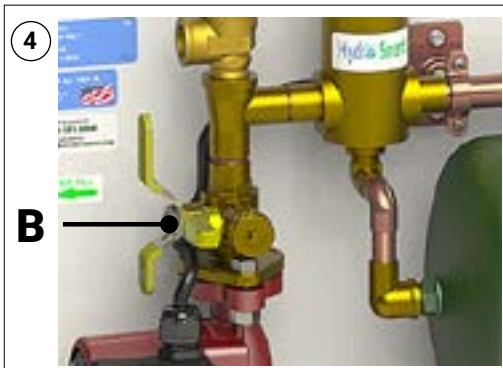
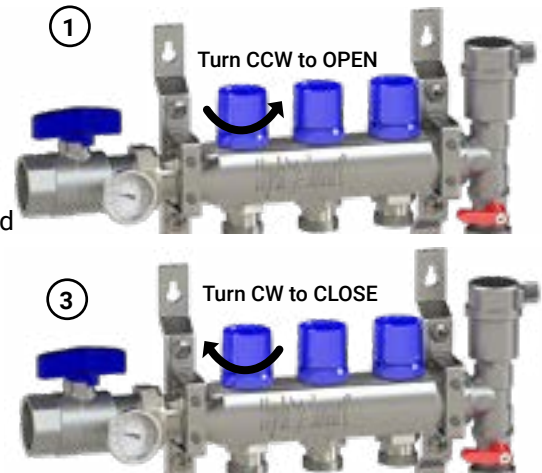
2. Observe air bubbles in the bucket dissipating for removal of air.
3. When air is purged out, CLOSE LOOP by turning Clockwise (CW)

Repeat steps 1 - 3 with each remaining loop until all loops have been purged

PRESSURIZING

4. With the TRANSFER PUMP still running, CLOSE off FILL EXIT POINT (B) valve and the pressure will rise.
5. When supply pressure gauge shows 16-22 PSI, CLOSE OFF FILL ENTRY POINT (A)
6. Turn off TRANSFER PUMP and remove hoses.

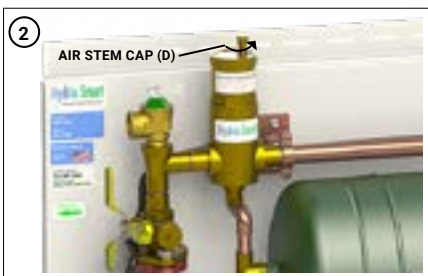
MANIFOLD



YOUR SYSTEM IS NOW PURGED AND PRESSURIZED!

BEFORE BOILER OPERATION

1. Rotate PURGE TEE (C) to horizontal position
2. Rotate AIR ELIMINATOR (E) stem cap screw counter clockwise 1 turn



**NOW YOU ARE READY FOR
BOILER START UP AND
SYSTEM/MANIFOLD FLOW
RATE ADJUSTMENTS**