



Quick Start Guide

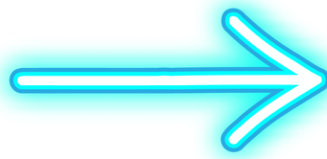
Thank you for choosing the HUG Hydronics in-floor heating system!

Every step in this quick start guide is matched with its fully expanded step in the Installation Guide.

You are also invited to watch HUGH's How-To Videos here: Each step has a video. They are short and to the point.



Scan here for a link to the full User Manual or call 218-587-5001 to request a paper copy.



HUG Hydronics Pre-Installation Check List

Please have the following items complete, or available:

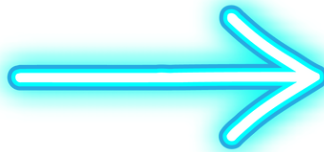
- The heat source/water heater/boiler is installed and ready for operation.
- The pex pipes are installed in the floor and the pipe ends are trimmed at 14-16 inches above the floor, behind the tank.
- The water heater connections should have 3/4" fip to 3/4" pex swivel adaptors to connect to hoses.
- A 15 amp 120 volt AC GFCI (a regular) electrical outlet is installed within 4 feet
- The thermostats are installed and the thermostat wires are run to the tank location.
- If using a smart thermostat, it will need a 24 volt AC power supply.
- The correct amount of distilled water or premixed hvac glycol antifreeze is on hand.
- Tools required: small flat-head screwdriver hose cutter or scissor
 standard pliers wire strippers
- HUG Hydronic Tank, assembled with pumps & hoses.

Safety Notices

The following instructions are for the safe installation and use of this product:

- This appliance is intended for use by fully functioning adults. For their own safety, please supervise those with a known lack of physical, sensory, or mental capabilities, or experience and knowledge.
- This is not a toy. Please do not let children play with the product.
The product is only to be used with the power supply unit provided. A damaged cord is to be replaced with one supplied by HUG or the manufacturer and not a repaired cord.
- This product is to be installed in accordance with national, state, and local wiring regulations.
- The minimum dimensions of the space necessary for correct installation of the product including the minimum permissible distances to adjacent structures Must be adhered to for safe operation. It is recommended to have 1" on each side and 2 feet in front for service.
- A wiring diagram with a clear indication of the connections and wiring of the product is provided in Step 2 of this manual.
- Details of the type and ratings of replaceable fuses are provided in the service section of the User Manual.
- Information regarding the minimum and maximum water operating temperatures are provided in the specification section of this the User Manual.
- Information regarding the purpose of the product controls is found in the operation section of the User Manual.
- Information regarding the product ambient temperature range is provided in the specification section of the User Manual.

Scan here for a link to the full User Manual or call 218-587-5001 to request a paper copy.



Take particular note of the CAUTION symbol when it appears. This information is important for the safe and efficient installation and use of the HUG Hydronics System.



CAUTION signals a situation where potential harm or risk of minor injury could occur if instructions are not followed.



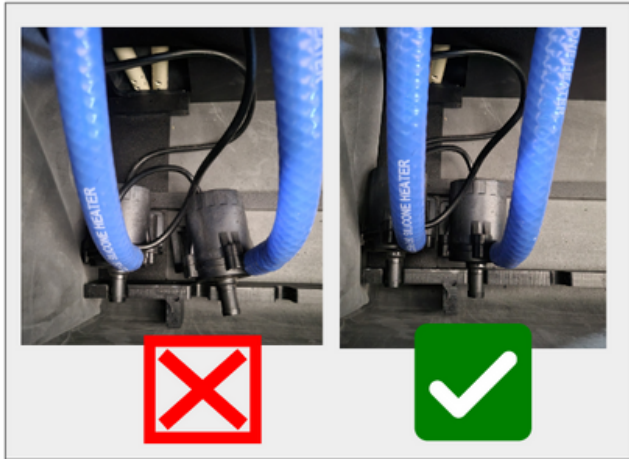
- Hazards include electrical and hot water
- Take precautions when opening the lid as the water may be hot
- Allow the system to cool before replacing submersible pumps or draining the tank.



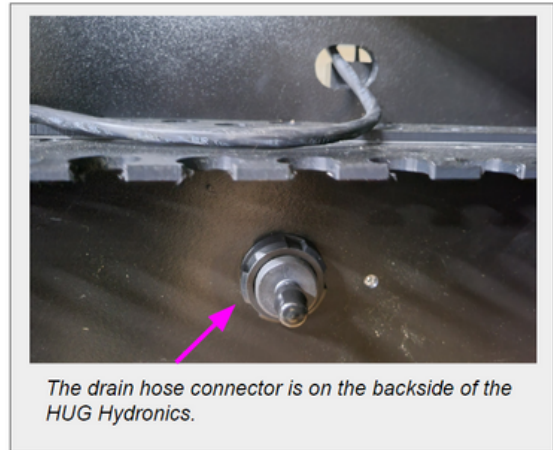
IMPORTANT Local Electrical and Plumbing Codes must be followed. Please refer and adhere to all appropriate state & local applicable codes for the installation. The product is to be installed in accordance with national wiring regulations.

Set Up & Start Up

Step 1) A) Remove the unit from the box and remove all packaging from the tank. Ensure that all pumps are properly seated in their respective grooved holder. Adjust blue hoses if needed.



Step A

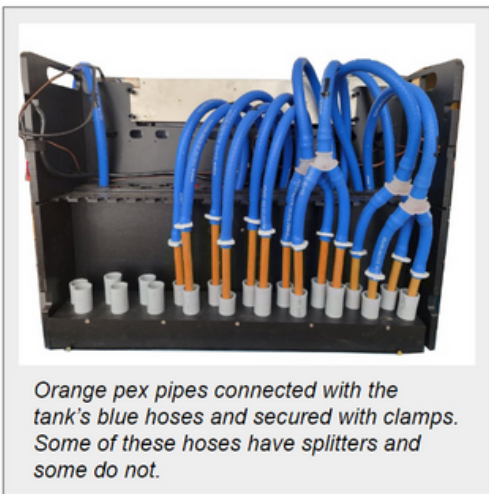


The drain hose connector is on the backside of the HUG Hydronics.

Step B

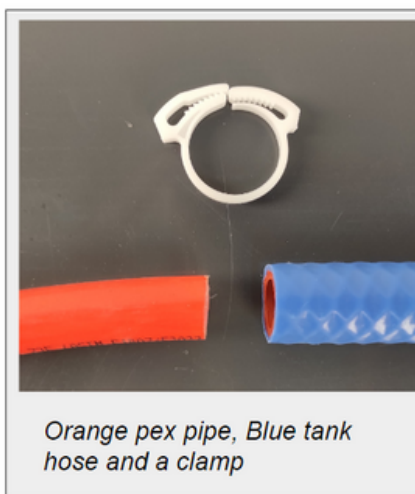
B) Connect the optional overflow to floor drain.

C) Connect the source and return hoses to the pex pipes. Push blue hose over pex pipes by about an inch and secure with clamp.

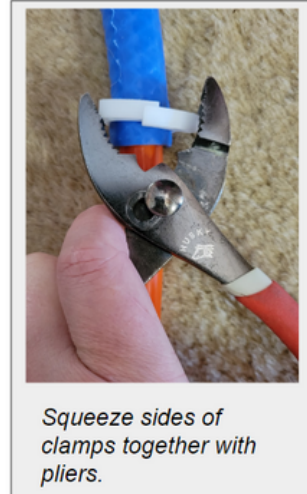


Orange pex pipes connected with the tank's blue hoses and secured with clamps. Some of these hoses have splitters and some do not.

Step C



Orange pex pipe, Blue tank hose and a clamp



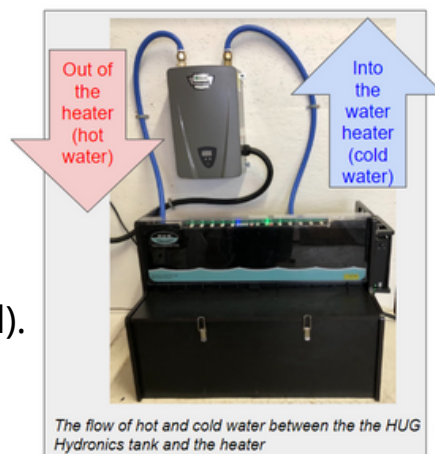
Squeeze sides of clamps together with pliers.



A securely connected blue tank hose to an orange pex pipe.

D) Connect the longer blue hoses on each end of the tank to the water heater. Use clamps.

Attach hoses to the wall with plastic conduit clamps as needed (not provided).



The flow of hot and cold water between the the HUG Hydronics tank and the heater

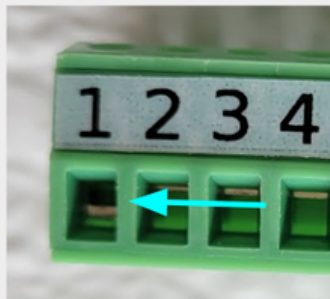
Pex pipes can be in any color, white, blue, black, orange, or red. The color doesn't matter. We use orange/red in our graphics so it is easy to tell the difference between the blue hoses from the tank and the orange pex pipes.

Step 2) Connect Thermostat



The 12 pin wire connector gently pulled off the control board.

Step B)

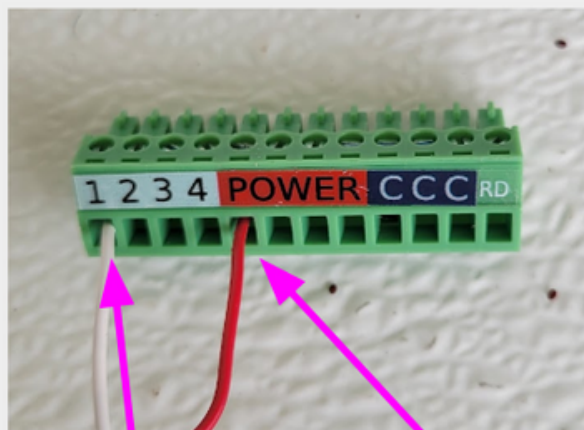


All the connectors should come open, with the metal in the lower position, like the # 1 terminal in this photo. If they are closed, you will need to open them by loosening the screw on top.

A) Route thermostat wires through the hole just under the control board.

B) Gently pull out the 12-pin wire connector from the bottom center of the control board.

C) Strip the end of the thermostat wires.



White Wire to its zone #.

Red Wire to a Power terminal

D) For each thermostat, connect thermostat wires as shown in the picture. Tighten down the screw on top to make a secure connection.

Do not plug the connector back into the control board yet.

Additional Steps for Smart Thermostats (24 VAC systems)

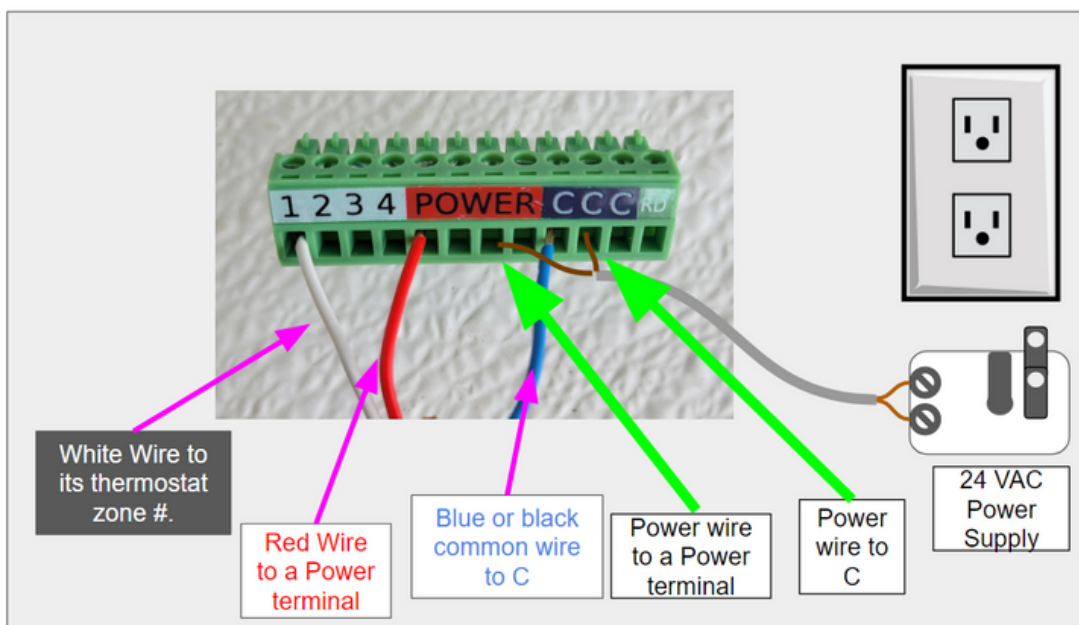
A) Remove Jumper #JP43 (the one above the "power" section on the control board).



Jumper #JP43 is circled in red. Remove it when powering a smart thermostat.

B) Wiring a Smart Thermostat

Strip and connect the wires from the smart thermostat and 24 VAC power supply. Attach as shown in the picture.



White Wire to its thermostat zone #.

Red Wire to a Power terminal

Blue or black common wire to C

Power wire to a Power terminal

Power wire to C

24 VAC Power Supply

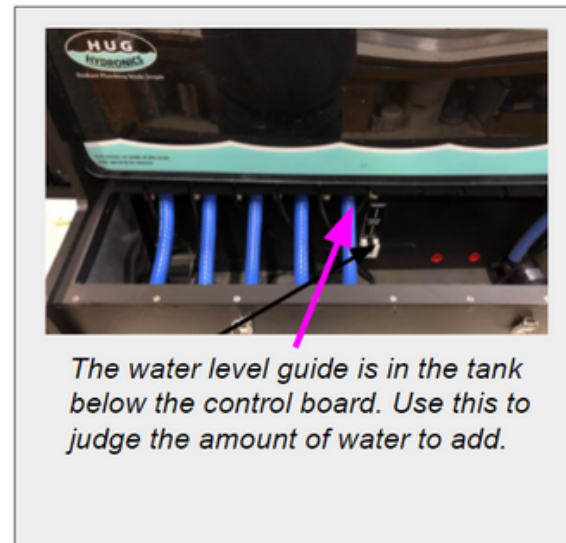
Step B) Smart Thermostat Wires

Step 3) Fill the Tank

Pour water or water/hvac glycol mixture into the tank until it's level is between the Low and Full marks.

*Note: Pure/De-ionized, Distilled, or Reverse Osmosis water is recommended to minimize scaling and biological growth.

Not all of the fluid will fit in the tank at first, add more fluid as you purge the loops.

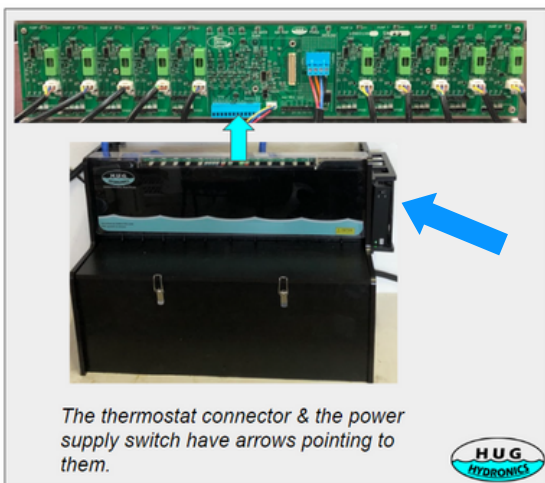


Step 4) Purge

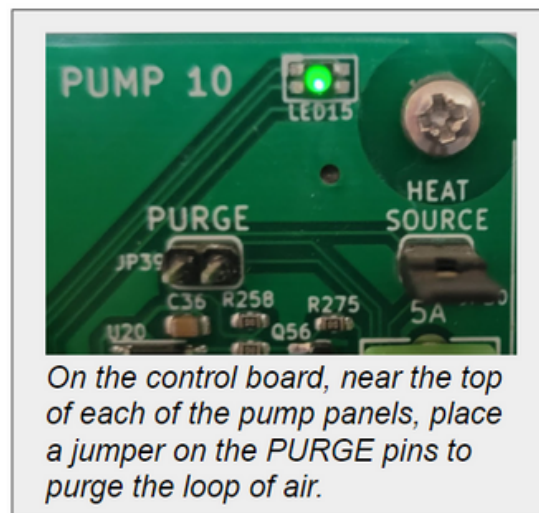
A) Open the Control Board cover and verify the thermostat connector is unplugged from the control board.

B) Plug in the tank power supply into a 120-volt outlet.

C) Turn on the power supply switch.



Steps A-C



Step D

D) Purge air out of the heater and pipes.

- Place a spare jumper on the "Purge" pins for pump 10 on the control board to purge the heat source hoses first.
- The pump light will become bright orange.
- Let the pump run until the gurgling sounds in the water tank stop.
- Use the same jumper to purge each pump that is in use.
- The water level in the tank will drop during this process, so add more water/glycol to the tank as needed.

Step 5) Settings

A) Power up the heat source and set its temperature (120°F to 140°F is a typical setting).

B) Plug in the thermostat connector and turn up thermostats to call for heat.

If you have a smart thermostat, plug in that power supply now.

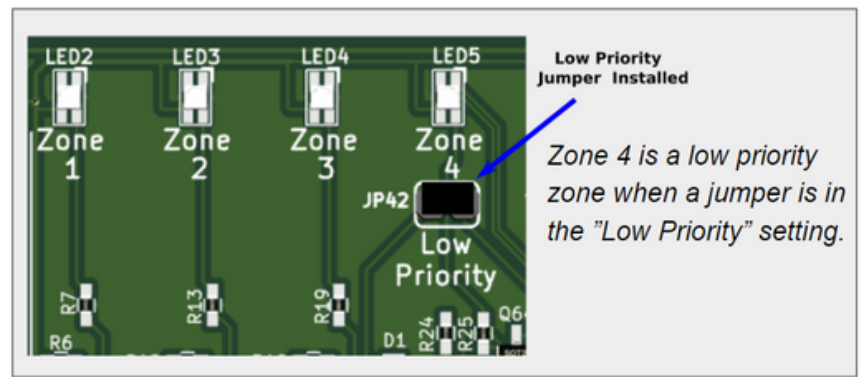
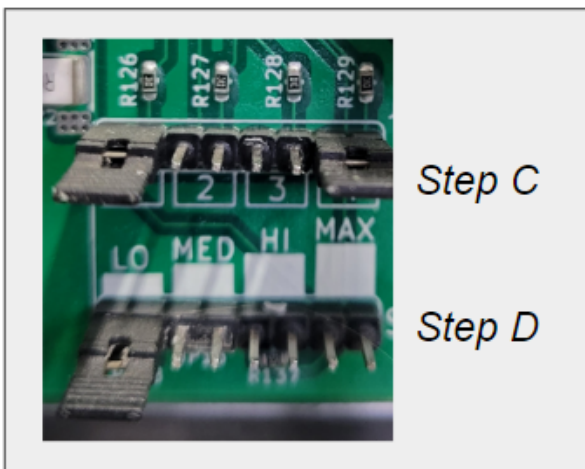
- Each active thermostat is indicated by a blue light on top of the control panel.
- Each active pump is indicated by a green light on the top of the control panel.

C) Assign the thermostat zones for each pump by moving the jumper to the correct zone number. (You can skip this step if you only have 1 thermostat)

All pumps are initially assigned to zone 1, except pump 10, as a heat pump, it is pre-assigned to all 4 zones.

D) Assign Pump Speeds:

- LOW IS ADEQUATE for most single loops
- MED for splitters w/2 loops
- MAX for Heat Sources (pump 10)



E) Re-adjust heat source temperature & thermostats to your desired temps.

Step 6) Final Checks

A) Check the water level, add additional water/hvac glycol mix until you reach the upper mark on the water level indicator.

*Note: Add a calendar reminder to check the water level every 6 months.

B) Reinstall and latch the tank cover.

C) Complete a final check with the thermostat(s) calling for heat:

- Check that the pump indicator lights are green or yellow, indicating the appropriate pumps are working.
- Check that the hot water hose(s) from the water heaters to the tank are warming. They should be warm to the touch.
- Close the cover shield over the control board.

Please send a photo of you and your HUG Hydronics System for possible marketing use. Please Indicate the date of installation and we'll register your warranty too: warranty@hugllc.com



Congratulations!