



Hugh the Ducky's



Installing the State Proline XE Combi Boiler Adaptor

Draft 3/1/2023

"In-Floor Heating Made Simple"

Your Combi Boiler Adaptor installs in 10 Minutes with 2 tools.

With this adaptor you can use the HUG Hydronics In-Floor Heat System with the State ProLine XE Combi Boilers to heat your floor and your shower.



Tools Needed:

1 pipe wrench

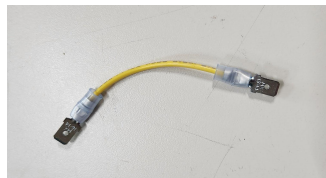
1 adjustable wrench



The Combi Boiler is huge compared the 24 KW on demand electric heater.

Your Combi Boiler Adaptor (kit 1137)

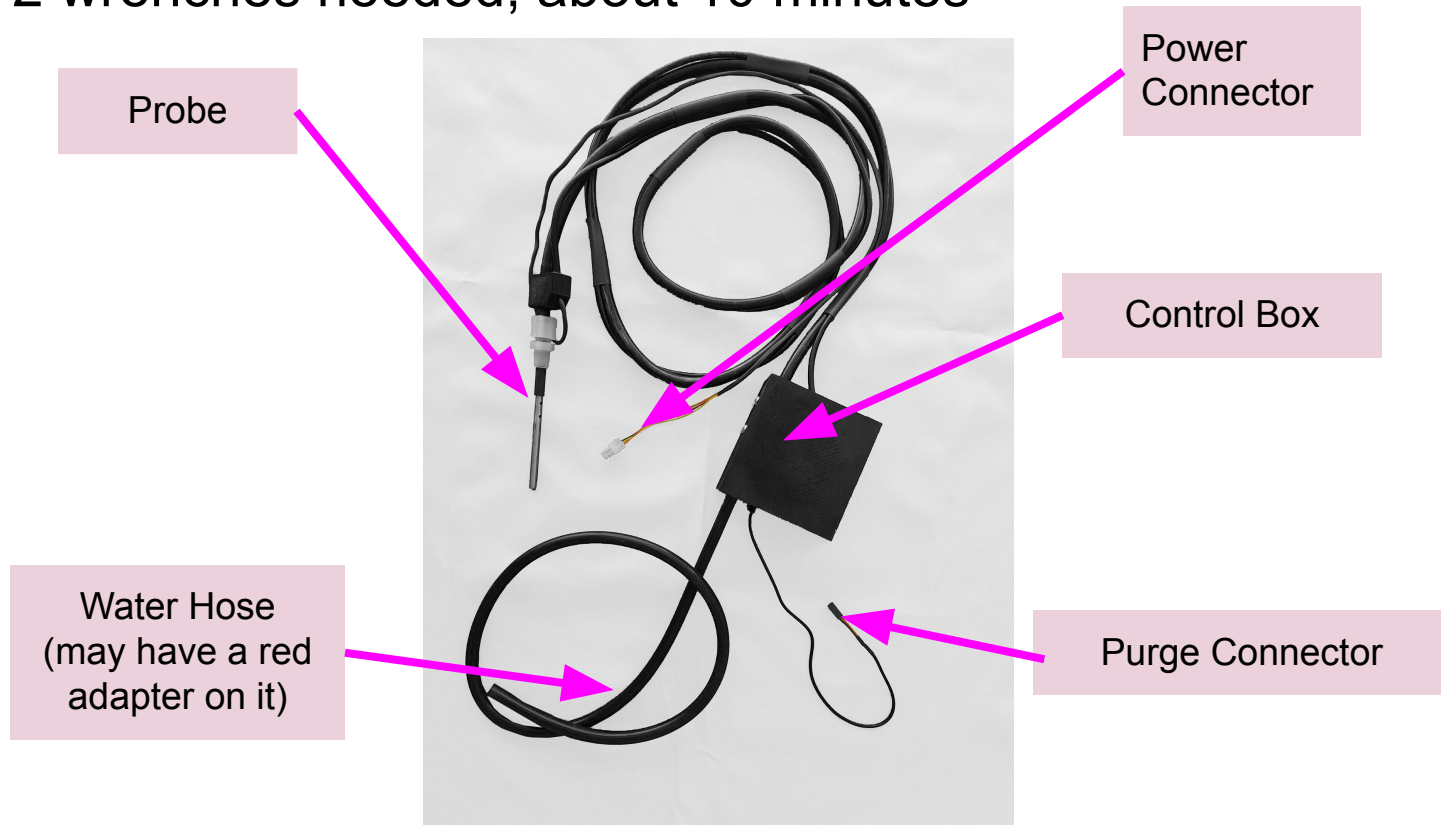
2 wrenches needed, about 10 minutes



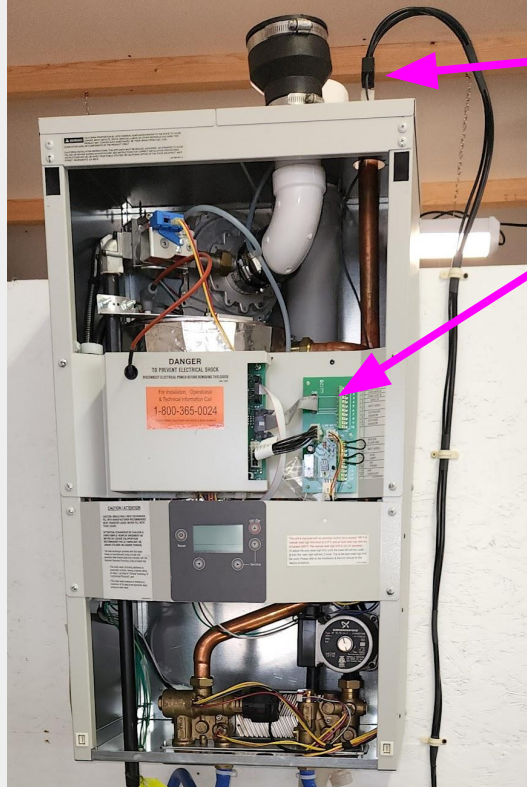
Jumper wire



3/4" to 1/4"
stainless steel
adapter with
nylon fitting



Combi Boiler



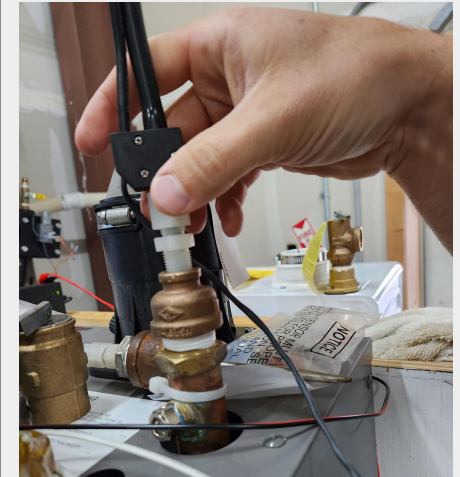
Probe

Power
Connector

1. In place of the pressure relief valve, use the wrenches and plumbing tape/compound to install the 3/4 " to 1/4" stainless steel adapter.
2. Slide the probe into the adaptor and hand tighten the nylon nut.



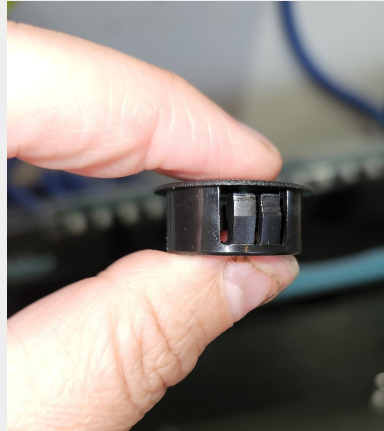
Use the pipe wrench to tighten the adapter and the adjustable wrench to hold the boiler pipe so it doesn't bend or twist.



Hand tight the nylon parts

3. Remove the black hole plug from the top of the Combi Boiler by pinching it from underneath until it pops out.

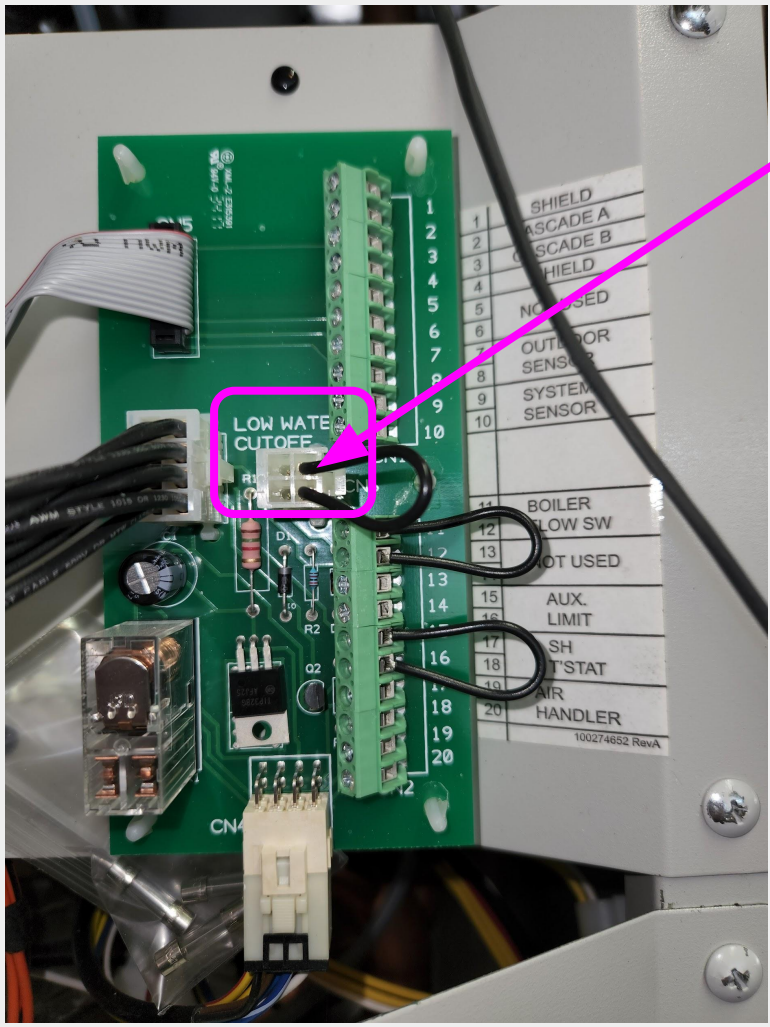
4. Slide the power connector through this hole.



The black hole plug from the top of the combi boiler.

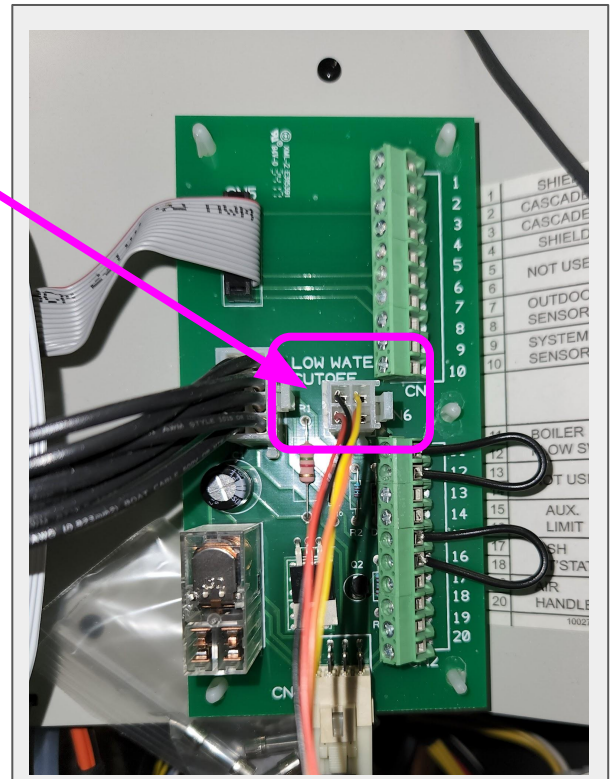


Slide the power connector through this hole. (If available, run the wire through the wire harness)



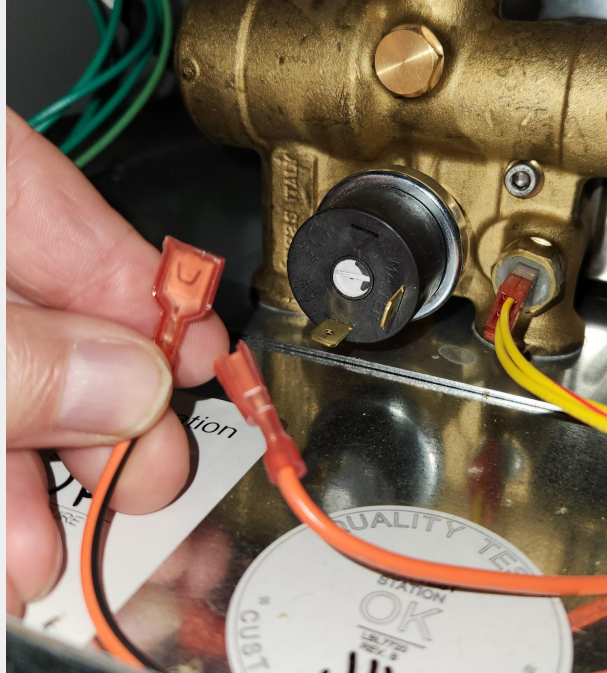
5. Remove the low water cut off (LWCO jumper plug) from the combi control board.

6. Replace it with the Power Connector from the probe.

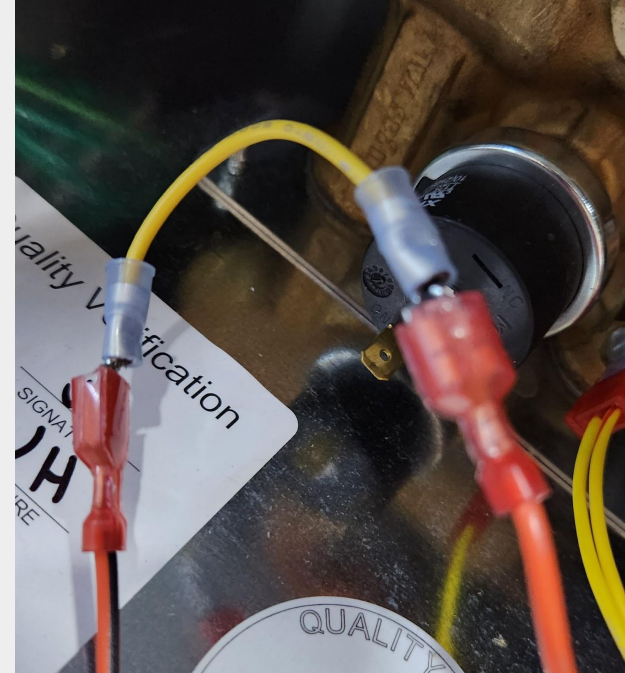




Pressure Sensor (near bottom left of boiler)



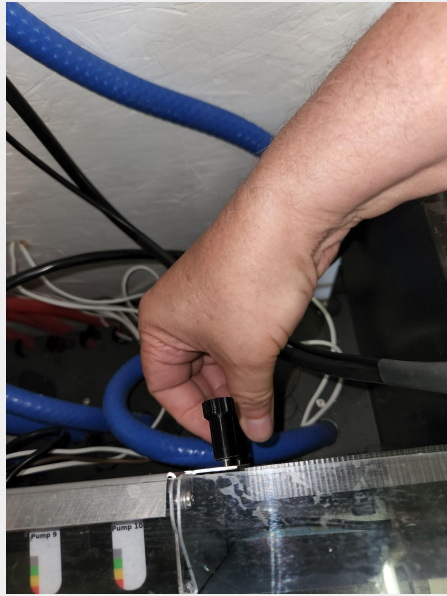
Unplug the two wires.



Use the jumper wire to connect them.

7. (If you have a pressure sensor) Unplug the wires from the pressure sensor and plug the jumper wire in to connect the two red wires.

8. On the HUG Tank, loosen the thumb screws on the right back side of the control board. Slide the control box screw slots under the loosened screws and then re-tighten the screws.



Loosen the control board thumb screws on the right side of the tank.



Take the control box



slide the screw holes under the thumb screws.

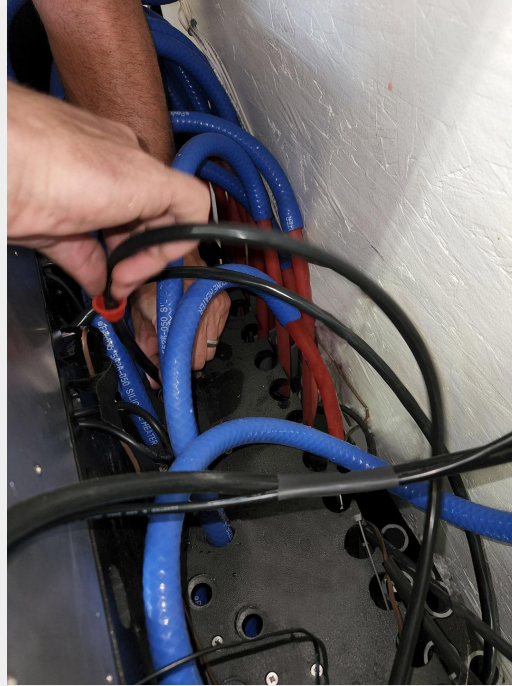


Tighten the screws.

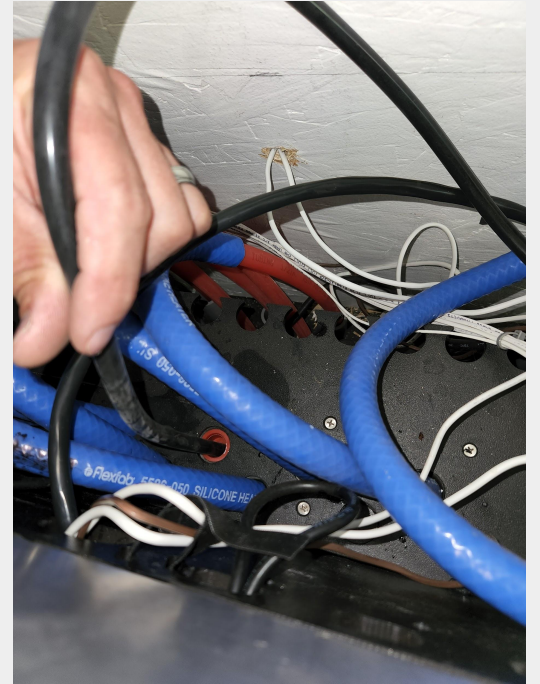
9. On the HUG tank, remove a plug from an empty hose hole and replace with the adaptor's water hose.



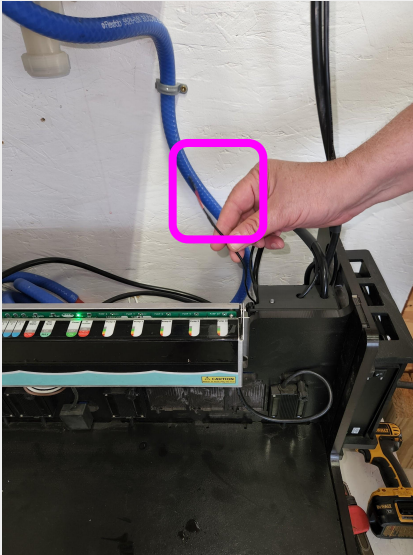
Take the water hose of the adaptor.



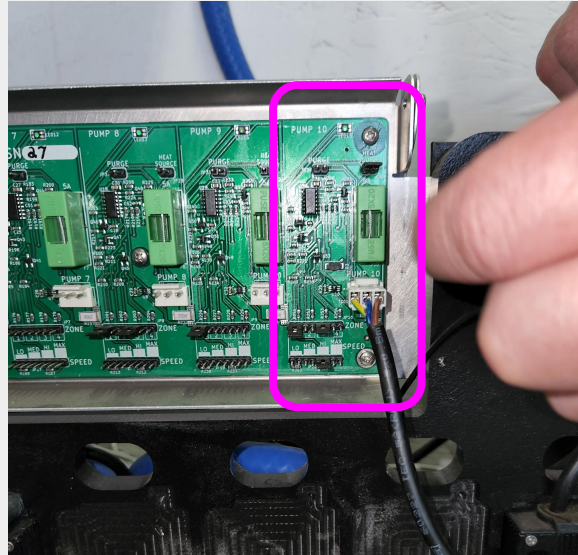
Slide it in to an unused hose hole as far as you easily can.



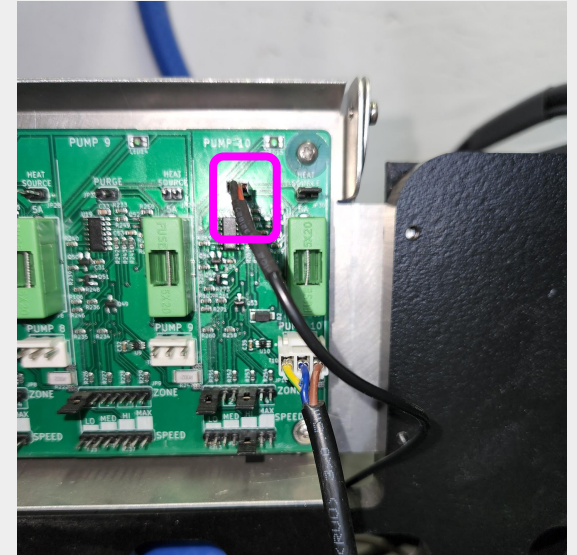
10. Route the Purge Connector from the control box through a hole under the control board and plug it into the “purge” pins at the top of the pump section that is feeding the combi boiler (usually pump #10).



Find the adaptor's Purge Connector.



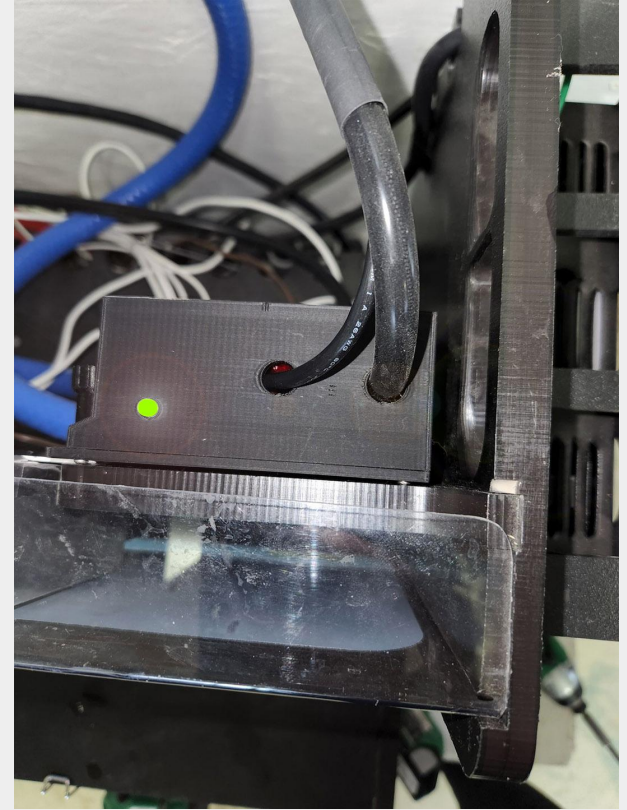
Locate the pump section that feeds the combi boiler (usually pump #10)



Plug in the Purge Connector to the purge pins near the top of the control board for the pump feeding the boiler.

9. Fasten the adaptor cable to the wall using wall clamps.

10. When you turn on the combi boiler, the LED on the control box should glow green (if there is water). It glows red when it senses the need for water and it is purging.



The LED on the control box glows green or red.

Initial fill of boiler:

Once the Combi Boiler Adapter is installed,

Make sure the HUG Hydronics tank is full of water (or antifreeze).

Make sure power is on for the tank and pumps

Turn on the power to the boiler.

The light on the purgerator will be red, indicating that water is low.

Pump 10 should come on and the boiler should start filling with water.

You should hear air bubbles coming out of the little purgerator hose

Keep adding water (or antifreeze) to the tank as needed.

If filling the tank takes longer than 30 seconds, the flow may start cycling on and off every 30 seconds or so. This is normal.

When the boiler is full, the system will automatically stop filling and the red light on the purgerator will turn green, indicating that the boiler is ready to operate.

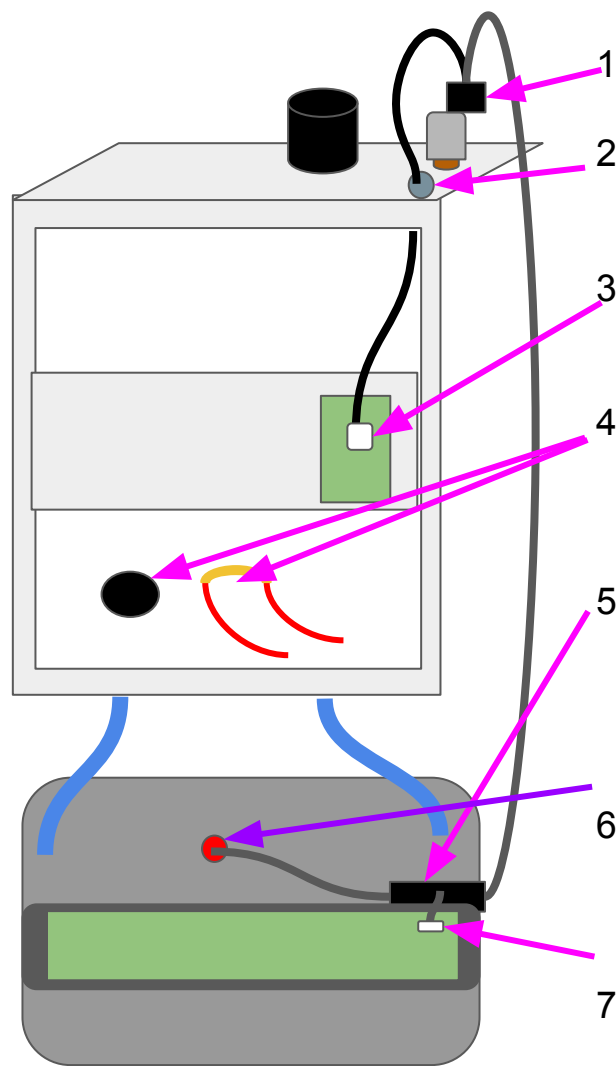
Normal Operation:

When all is well, the purgerator light will be green, indicating that water is all the way to the top of the boiler.

If enough air builds up in the boiler so that water no longer touches the probe, the light will turn orange and pump 10 will come on, adding water to the boiler and purging the air. Normally this takes less than a second.

Installation Graphic

For Full Instructions Please Visit:
<https://hughydronics.com/pages/how-to-install-the-combi-boiler-adaptor>



1. Probe gets connected to top fitting.
2. Remove black hole cover, Slide power connector through hole.
3. Replace Low Water Cut Off Connector with our power connector.
4. Unplug the two red wires from the pressure sensor. Use the jumper wire to connect these two wires.
5. Place black control box behind the pump control board by loosening the thumb screws on the right side and sliding it in.
6. On the HUG tank, remove a plug from an empty hose hole and replace with the adaptor's water hose.
7. Put the purge connector on the purge pins of pump #10.

Hugh the Ducky Tech Line

*Your multiple heat source situation is probably as unique as you are. Feel free to call or email our **Hugh the Ducky Tech Line** for personal assistance.

HUGH@hugllc.com- include pics of your set up/question please.

218-587-5001

