Common Issues with Pool Heaters

Why isn't my pool heater working?

Pool heaters can be one of the most difficult things to troubleshoot. Quite often, however, the problem is something that is relatively simple. In this article, we discuss some of the most common issues that arise with pool heaters.

MY HEATER WILL NOT TURN ON

I can see error lights or messages on the heater display panel

Today's pool heaters have pretty decent onboard diagnostics and they will often give you an error code or will display a service light, or both. Often you can look at your heater manual or Google the error code and find out more.

Many of these codes relate to internal issues that will ultimately need to be addressed by a technician (preferably one with extensive heater experience).

Issues in the safety circuit (high limits, pressure switch, rollout sensor) can cause the heater to not even try to fire.

I am not getting any error lights

If your heater does absolutely nothing when you try to turn it on, then there are some things that you need to check out.

The first thing we need to know is if your heater is connected to a electronic control system or not.

My heater is connected to an electronic control system

1. Power switch on the heater not turned on
2. Heater not in "remote" mode so it cannot respond to the control system
3. Temp sensor on the electronic control system is defective
4. Heater not "enabled" in the electronic control system.
5. Heater set point set too low in the electronic control system.
6. Communication wire broken between the control system and the heater

My heater is not connected to an electronic control system

1. Power switch on the heater not turned on

2. Fireman's switch in the timer box has it turned off

MY HEATER TURNS ON FOR A FEW SECONDS THEN SHUTS OFF

Today's heaters have flame sensors built in, so that if the gas does not ignite then the gas valve will shut off for a certain amount of time, then it will try to ignite again for two more times. If it continues to fail to ignite, then it will go into lockout mode.
BUT . . . what if your heater DOES ignite, but only stays on for a few seconds. This indicates that the flame sensor is not sensing flame. The flame sensor could be dirty or corroded OR the ignition control could not be reading the signal from the flame sensor properly. There are service tools that can tap into the ignition control unit and read the signal from the flame sensing rod, so that we can determine the exact problem fairly quickly.

MY HEATER TURNS ON AND RUNS FINE, BUT SHUTS DOWN BEFORE REACHING THE SET POINT.

So you are trying to heat your spa and you have your temperature set to 100, but the heater shuts off at 92, then turns back on again, then off again, then on again, and so on. This is normally caused by the high limits inside the heater. Your heater has a set of redundant sensors that measure the temperature inside the heat exchanger. One is set at 135 and one at 140 degrees (in case the first one fails). If the water is moving too slowly through the heater, it will get too hot inside the heat exchanger.

There are two main causes for this problem.

1. There may be a problem with the thermal regulator or mechanical bypass. This will cause the water to bypass the heater instead of flowing through it. This is a common problem on heaters over five years old.

2. There may be something in the system causing a reduction in flow. This is often the result of clogged spa jets.

   NOTE: If you have an electronic control system and you have the temperature set to 100 degrees, but the temperature control on the heater itself is only set to 90 degrees, then the heater will heat to 90 degrees and shut off. If you have an electronic control system, you normally set the temperature on the heater itself to the highest possible setting and then set the desired temperature on your electronic control. The temperature control on the heater itself serves only as a high limit.