

Flo Code

I started getting a FLO code and the hot tub would basically shut down...I replaced the flow switch but still have problems. I checked the filters and they are clean and the tub is full. The new flow switch I got is somewhat different than the old one. The old one was adjustable... right now the tub shuts down after running a bit and when I take one leg off the flow switch the unit starts up again and resets.

Was the switch an actual flow switch or was it a pressure switch? When you say the unit shuts down are you saying everything including the pump quits working, or is it just the heater? One test you can do with the pressure switch is to shut off power remove the two wires on switch and put the wires together with tape. Then power back up and see if the spa will function. If so the switch is not the correct one or is bad and needs replaced. Have the heater off when doing this test.

Seems the spa just shuts down, pump and all, and once it kicked out the breaker. It's an Emerald Spa, I replaced the pump about 12 months ago because of a leaky seal. Maybe the heater is getting plugged up? We bought the spa about 9 years ago. I don't know how long they generally last.

That is a long life for a heater. You may want to remove and visually inspect inside the manifold. More importantly, check the filter by removing it and running the spa to see if everything is normal. Also check that any valves in the system aren't half closed, or broken. One way check valves can also become damaged and slow the water flow. Does the house breaker ever trip?

Cal Spa "Sn" display

My Cal Spa will not start (possibly following a close lighting strike) I get a "Sn" display reading but tub will not turn on. Any suggested diagnostics I can do?

Sn is a "Sensor" Code on many hot tubs. You can try unplugging the spa sensor harness, wait a few moments and then plug back in. You would want to turn the power off before doing this. Usually a SN error code is signaling that one of the sensors is failing, but since you said that it was a possible lighting strike then your circuit board could have been damaged.

Paradise Hydrotherapy SnS Code

Does anyone know what the code "SnS" means on the image paradise hydrotherapy spa control panel, it is flashing between this code and the current water temp of the hot tub.

SnS error code - this usually means that your sensors are out of balance, or reading different temperatures, not synced up. Since it is flashing between this error code and temperature it may be a temporary condition. If it does not go away I would start with the temperature sensor as the problem, and replace the sensor.

Message HH, Hot Heater

I have a celebrity model TONGA S made by leisure spas and I keep getting this message (HH). In the manual these two letters mean heater hot in excess of 118 degrees. That is not the case because the SPA shuts down within minutes of turning it on. I have looked at the SPA PACK housing and the heater is NOT hot at all. Could it be the sensor giving a false reading and shutting down the spa.? Is there anything else I can look at?

HH means Hot as Hell, kidding it's High Heat. It very well could be the spa high limit sensor causing the problem. Is the water flow the same? You can try removing the [spa filter](#) and try running it and see if it goes into hh code mode. If so, then I would start with the high limit. If there are suspected flow problems (which can be from filter, valves, obstructions), then look at the pressure switch.

Thanks for the tip. The model I have has two sensors, is there a way to find out which one is bad or do I have to replace both?

If both sensors are mounted on the spa heater then chances are they will both be the same type sensor. One is the high limit, the other is the temperature sensor. You probably only need to replace one, the high limit. You may have a wiring diagram inside the load box showing where the high limit plugs into the circuit board. You could then trace the wire back to the correct sensor on the spa heater.

FLO Error Code

Refilled and started hot tub after 8 months' empty. FLO error appeared on display. Only able to move temp in cooler direction - no increase in temp settings. Jets work with button pressed. Feels like circulating pump (just replaced) is working. Water feels cool - no increase in temp. Please advise on what to check next.

The FLO error could be caused by a clogged or dirty spa filter. You can try removing the filter to see if that makes a difference. A filter may look clean but can still clog if it has not been replaced with a new one in a while. Valves or one-way check valves can be blocking water flow. Plastic or fabric covering the drain. You said that the spa circulation pump feels like it's working, you should be able to feel a small constant stream of water coming out of the heater return fitting. The other component that can cause a FLO error would be the flow switch (different from the pressure switch). The spa will not heat in a FLO condition. When you push the button on the panel to increase the temperature does the display change settings and the spa is just not heating? Or does it reach a certain setting and will not go any further but you can then lower it?

FL-2 Code

I have a Jacuzzi 220 and after a recent draining and cleaning the fill and start I got a FL-2 for 30 seconds then everything went to normal on the digital pad. Everything works, pump, heater, light but 2 sets of the four jets don't work. Re-checked everything but still does not work.

FL-2 is an error code sensing poor water flow. Since you got a flow error code when you first started up you may have had an air lock in the pump since it was drained and refilled. You can try running the pump after just slightly unscrew the drain plug on the pump just enough to allow a small amount of water to drain out. Another way is to loosen the union nut on top of the pump, to allow the air to escape. Also check and make sure diverter valves are open. Depending on the year of the spa some jets can be turned off by rotating the face of the jets, verify that they are open if that is the case. Other valves under the spa may be closed, or clogged. Check that the main drain is not covered with something blocking flow. Another possibility is a very dirty or old spa filter, replace them every 1-2 years.

I also have this same problem, on a Del Sol model by Jacuzzi and it intermittently displays an FL 2 code on the digital control usually appears when blower is turned off - got any ideas?

In addition to checking the filter, valves and drains for obstruction, the FL2 code on the Del Sol could mean that your pressure switch has stuck in the closed position when the spa pump turns off. The pressure switch is a device that monitors the rate of water flow going through your spa heater. When the pump is on and pushing water through the heater the switch closes allowing your heater to come on. When the pump is off the switch opens back up. If it doesn't open, then you will get the FL2 error code. Usually if the pressure switch doesn't open back up it means it is failing and needs to be replaced.

Cal Spa Dry Error

I have a 2004 cal spa Atlantic model, it has the Balboa cs7000 control panel. I am having the "dry" warning come up more and more on the tub. I check the temp sensors the resistance seems the same, I am wondering if it could be the Safety suction sensors? I don't see much else on this model for sensors that could cause this error, looking for advice?

When you get the error code "dry" that is when the spa has had the error code "dr" for the third time and the spa will then shut down. That error code represents or is sensing inadequate water in the spa heater. Check the water level to make sure it is not too low in the spa. Then make sure you do not have an air lock in the spa pump or spa heater causing the code. You can also try removing the spa filter, or replace with a new one to see if the error code goes away while the old filter is removed. If that does not help, look for closed valves, blocked drain covers, or closed jets that may be causing flow problems. If all else seems normal, it could be one of the heat sensors delivering an inaccurate error code.

PSoL and PSoH

I have these trouble codes on my hot tub. I bought the control pack from Hot Tub Works if that helps.

Thanks for the purchase! PSoL is an error code for the pressure switch and PSoH is an error code for overheating. Since you are experiencing both that leads me to believe you may be having a water flow

issue. So the first thing you should do is remove the spa filter and turn on the jets to see if the error codes clear. If they do you should replace the filter with a new one. The old filter may have been restricting the flow of water through the heater, causing both error codes. If that doesn't help, look for other flow obstruction, like closed valves, broken check valves, closed spa jet banks, or something covering the drain, or low water. Clogged impellers rarely happen, but is a possibility.

FL Code on Cal Spa

I have a 2004 cal spa with the FL code showing and it will not operate. Will replacing the Tecmark 4037P pressure switch fix it. If so, how do you replace the switch? Does the tub have to be empty? Do you put Teflon tape, etc on the threads?

By replacing the pressure switch, that may repair the spa but before doing so - check to make sure your spa filter or a closed valve is not causing the flow problem. If the filter is dirty it can cause a flow restriction causing the FL code. Try removing the filter to see if the code goes away. If you decide that the pressure switch is causing the problem, check to see if you have slice valves in the equipment area that can be closed so you don't need to drain entire spa. Teflon tape should be used on the pressure switch threads, yes.

FLO and PLUG Message

I have an Optima spa that I just replaced the heater (It froze and cracked the housing) everything else seems to work fine on startup but then I get a FLO or PLUG message on the screen and the heater is not working. I do have 240 going to the heater. I have rebuilt a hot springs and am very comfortable working on tubs so if anyone can point me in the right direction please do.

If you are getting PLUG as an error message that means that the spa top side panel is not making a good connection. I would turn the power off, unplug panel and then plug it back in, turn power back on and see if it clears. On a FLO error message, it could mean a few different things. It depends if it is flashing FLO or stays on solid. When the spa is in FLO the heater will not come on. If it's flashing then that means the [flow switch](#) is not closing due to reduced or lack of water going to the spa heater. This can be caused by a dirty spa filter, or the 24 hour circulation pump has stopped working, or a closed valve. If it is a solid FLO then that means the flow switch is stuck closed, maybe something wrapped around the paddle not allowing it to open back up.

Also, when testing power going to a 240V heater, you should test across the red and black wires to verify 240V, not one leg to ground. If the spa is in FLO you should not be getting 240V to the heater.

EC Code

I was recently given a 2000 Cal Spa Jacuzzi. It has a panel on top that says GE electric, and the board says Balboa Instruments 2100 wiring system. There was a rat that got under it and chewed two or three of the small wires, which I have fixed. I filled the tub, the jets work, the blower works (on the option button), and the lights work fine. But when I hit heat it starts at 100 and goes up to 104, blinks several times then goes back to 62 and blinks EC. Anyone have any idea what this could be? (The heat light indicator on the top panel is not lighting up either).

Does the heat light ever come on? If not, then your problem is going to be on your control side. Either thermostat, pressure switch, temp sensor, etc. From your description it sounds like you might have a high limit issue. If the spa is heating from 100 to 104 and then cutting off sometime after that, you might have a bad high limit sensor. In case you didn't know, the high limit is a safety switch designed to kill power to the heater when it gets too hot. Usually around 110 degrees. Another possibility is the blinking EC. Newer spas have what's called "economy mode". This means that the tub will only heat during a preprogrammed filtering cycle. If this is the case, just put the tub in "standard" mode and you should be fine. EC is economy mode and you can turn it on or off on the panel by pressing a specific sequence. Temp display shows current water temp until a temp + or - is pressed then it shows the thermostat temp for a few seconds and goes back. So it sounds like the panel is working correct. You just have a heater issue. Could be as simple as a fuse or relay.

Panel Blinks OH

We have an older model Northwest Spa. The model is a 620D 240V. They use Balboa Instruments for the internal components. The hot tub has been working fine for several years. Now when I turn the tub on it will run for 1 to 2 hours but then shuts off with an "OH" reading? If i press the temp button it will start again and run for another hour, but then shuts off with the "OH" reading.

OH means Overheating, as sensed by the hi-limit or temp sensor, and is caused by water not flowing fast enough thru the spa heater. If the spa has a temperature display on the top side panel, verify that the temperature on the display matches the actual water temperature in the spa using a thermometer. Have you gotten any other messages on the control panel like FLO or any others? I don't think the heating element would be causing this. More likely a bad temperature sensor problem. After the spa pump has been running for a while is the water flow coming out of the jets the same as when you first turned it on? Are there any slice valves on the spa, if so make sure they are all the way open and not slightly closed, sometimes they can vibrate closed by themselves.

I have the same issue. I replaced the sensor and checked the slice valves and they are opened, could it be the circuit board (Mother Board)?

If the spa filter is not restricting water flow and the sensors are new, then yes it could be the spa circuit board causing this. We try and go through every possible scenario before replacing the board but sometimes it is necessary. What sensor did you replace?

The sensor I replaced was the (Balboa, High limit & Temperature sensors). I set the temp at @ 92 - when it hits that temp it maintains it then eventually the OH reading comes on. The unit (Suntek) is

around 14 years old should I replace the circuit board or the whole Balboa unit. It has the original heating unit? Could a bad pressure switch cause the OH reading?

No, a pressure switch shouldn't cause OH error. How old is the filter cartridge in your spa? Have you ever gotten any other error codes besides OH? If the filter is not restricting water flow and both sensors are new, then it could be the mother board causing it. Since your pack is 14 years old it may be time to upgrade to a new system.

Cal Spa model 6300

Getting fault codes on my tub. Originally shut down with an HH code (high heat). After resetting breaker everything appeared to start up but couldn't tell if all pumps were running. Anyway, temp was at 53. I did not check to see if this was the actual temp. After ten min. or so pump(s) shut off and the temp had gone up to 62. 9 degrees in 10 mins.?? After sitting idle for a brief time the code DR was displayed. 15 min. later the DR was gone and temp was displayed. after approx. 30 min. the code SN was alternately displayed with a temp of 72.....Any ideas?

Wow that's a lot of spa error codes all at once! HH, then DR, then SN - You may not be getting good water flow through the heater. If your spa has a 24 hour circulation pump you need to verify that is running and pushing water through spa heater and out the heater return fitting in the spa. DR stands for a flow issue – SN is one of the sensors, high limit or temperature – OHH is for overheating. This could be caused by a low flow issue, dirty filter, closed valve, clogged drain or impeller in some cases. Overheating (of the heater), can also be caused by a faulty element, or in the case where it's not really overheating, a faulty hi-limit or temp sensor.

PSoL Error Message

My spa pack is throwing a PSoL error. I can turn it to high, and lots of water comes through, but when I turn it to low, it immediately changes to PSoL and doesn't heat. I replaced the spa filter last week with no effect. We did have a hard freeze last winter. I had drained the water on the tub, but the big plastic ring on the filter had cracked. Now I am wondering if the pump cracked. Since the flow seems to be OK, is there a way to over-ride the PSoL error? Is there something else I can test?

PSoL is a low water flow error. When the pump is in low speed is there water coming out of the jets normally? I know you said it does on high speed. If water is coming out like normal in low speed it may be a bad pressure switch. You said the filter is new but have you tried removing it to see if the PSoL goes away? There is no way to override this error code, it could cause a problem if the flow is too low and the heater is allowed to come on. It's not very unusual for heaters to not work on low speed, but since yours did before and now it doesn't, something is amiss. Probably the pump is not cracked, you would notice that. And the impeller sounds OK too. Have you tried adjusting the pressure switch? Some have a dial that allows for a lower adjustment when turned counter clockwise.

SnS Sensors out of Sync?

I have a 2004 Down East Spa made by Master Spas. The Balboa heater tube was leaking around the connection where it attaches to the board. I replaced it with a new heater tube which came with new temp sensors which plugged into the board. Now I get the SnS error code without a temp flashing with it. From what I could find it says the temp sensors are out of sync but of course it does not tell you how to sync them, any help would be appreciated.

Syncing up the sensors is usually dealt with in your spa pack owners manual, Balboa has a nice online [sensor sync diagnostic procedure](#). But before doing that, make sure that both sensors are properly mounted and fully inserted and that connectors are also clean and fully inserted. Check for damage to sensor wires, and check that the sensor wire connectors are connected to the correct terminal on the board.

OH, then "----" on Display

In my Sundance Cameo series 850: I have the power turn off to the spa since it's malfunctioning, but when the 220 Volt breaker is closed and power applied to the spa, the circulation pump runs for 1 second then stops, the top side display briefly shows "OH", then the watchdog "- - -" appears. The water temp is about 85 degrees, flow switch was working last I viewed it, and filters are new.

OH means Overheat, which can be caused by low water flow or high electrical flow. If you are comfortable using a voltage meter I would first verify that the circuit board is supplying the circulation pump power after it shuts down. It could be that your circulation pump is going out or debris is in the pump impeller. It could also be the temperature sensor going bad, and giving erroneous errors. Like the pressure switch, the temp sensor can be 'jumped out' of the system with a jumper wire, to determine if that is the switch that is open. But only for testing purposes, don't bypass the spa safety circuits.

Jacuzzi 380 Flashing Error "Change Filter"

We have changed the two pleated filters with new ones, but the flashing error code continues. We have drained and checked the exteriors of the foot well filters. The spa heats, the pumps work, all of the jets move water and the diverters are open so as to allow all of the jets to receive water. We did have FLO code flashing as well, but that has stopped after restarting spa.

Not an Error Code, this is a programmable feature that you can set for how many days you would like to go before cleaning or replacing filter, it can be programmed for up to 120 days or be turned off. It doesn't affect spa usage but must be reset after cleaning or replacing filter. To program and reset the message you press the cycle button six times. The display should read "FIL". Then press the select button one time, it should show what is currently programmed for the duration or the days since last filter cleaning. Then you press the up or down button to change the duration. Lastly press the display button to save changes and reset message.

LA Spa NO HEAT, Code P50

My LA Spa is showing an error code of P50 and it is not heating. I tested the voltage to the heating element and there is no voltage. Could it be a pressure switch problem?

P50 error message on a spa usually means a flow issue and the system will not allow the heater to come on. It very well could be the pressure switch causing the issue but it may also be a true flow issue meaning not enough water passing through the heater to allow the pressure switch to function. I would try removing the filter first and operate pump to see if error message clears, if so I would replace the filter. If P50 error message remains and pump is functioning normally (good water flow, all valves open). I would then suspect the pressure switch as failing. You can temporarily jump out the PS by a small bent wire, touching each wire terminal on the switch. If the heater heats and code goes away, then you know that the PS was the cause. (But again, be sure that flow is normal, because the PS could just be doing its job!).

Sundance Capri - FLO error

Hi, I have a '05 Sundance Capri that has just started to display the FLO message. Per info on the boards, I replaced the filter and the pressure switch, easy enough to do, but I still get the same message. I don't know what to troubleshoot next, and I'd rather not call a repair person just yet. I saw some postings about the circulation pump maybe causing the message. How do I inspect/troubleshoot to determine if this is the issue? Pumps appear to be working normally.

Hi! You would want to check your circulation pump. It should be a small little pump that runs 24 hours a day. It usually has 3/4" plumbing lines running to it. If that is running you should see a small stream of water flowing out of the return fitting in the spa. If that pump has stopped operating, you will get a FLO error code. This pump is different from the large therapy pump that comes on when you push the jets button, much smaller. Other causes of FLO message include closed or partially closed valves, broken check valves, and drains covered with plastic or cloth. Low water level or air leaks in front of the pump, drawing air into the pump can also cause the FLO fault code. In rare cases, the impeller can become clogged and reduce water flow volume enough to where the FLO code appears.

FLO error message

I have a Coleman Horizon Series 400 spa that started the above message and no heat. The message alternates with the tub temperature. I've tried removing the filter but the error message stays on. The two pumps both run strong with what seems to be good pressure. The tub is probably 10 years old. Is there a generic pressure switch that can be used for replacement, or do I have to remove the old one to see it's make and model.

A FLO error message means the system is not detecting good water flow moving through the heater. So your spa actually has poor water flow or the system thinks it does. Spas have a pressure or flow switch

that detects good water flow moving through the heater and allows the system to send voltage to the heater. It is a safety device, so the spa should not heat if the system is not detecting good water flow.

Causes of FLO error messages:

Bad filters, clogged plumbing: if the filters are saturated or if the plumbing leading from the filters is clogged, they will restrict the water flow moving through the heater. Turn the power off and remove the filters and check and clear the plumbing. Operate the spa without the filter and see if the error message goes away. If so, clean or replace your filters.

Damaged pump: if the pump that supplies the heater is damaged, then it won't be able to supply the correct water pressure to close the pressure or flow switch. Clean, repair, or replace the pump.

Bad pressure or flow switch: If the above are fine, the pressure or flow switch may be damaged or clogged. You can try temporarily jumping the switch, cleaning, or replacing the switch to see if the message goes away.

Damaged circuit board: If all the above are fine, then it is most likely the circuit board that is damaged and cannot interpret the good water flow signal from the pressure switch. Repairing the circuit board may be possible, but typically circuit boards are replaced.

Vita Spa Error Code

HELP Vita spa problem (reflection spa control panel) We have error code HILI, preceded by LS, all flashing and when the self-diagnostic was done it came up with CS. Is this water temp sensor, or Current sensor or (oh God) a new control board?

On Vita Spas the HILI is an error code for over heat. Is the actual water temperature in the spa over 104 degrees? Try removing the filter to make sure you are not getting a restriction of water flow going through the heater. CS is a code for Current Sensor, you are correct. Try to duplicate the issue, and if it always goes to CS, then replace the current sensor.

BrettLine BL-70 188 Error

The hot tub is acting very crazy. Will start pumps and air and sometimes I could start one pump only with an error "188" when I try and start pump 2 (everything stops when 188 is displayed). Sometimes I can get 2 pumps going with finally the air causing the error. Fooled around with the wiring as I thought it was the transformer and somehow it worked fine for two weeks or so ... but now it started acting up again.

You can try turning of the power and try disconnecting the topside panel from circuit board. Make sure the connections are clean and reinstall. I am not sure what wire you were working with. It could be an issue with your transformer not supplying the topside panel proper voltage. Should be getting around 12-14 volts to topside from transformer.

Bought a new topside controller as I thought that was the problem ... same thing. The voltage from the transformer fluctuates from 12.6v to 14v ... different on different days. When it's at 12.6 it works better (still tripping with 188 code) ... at 14v it starts the pump and i can't shut them off. It works for a while and then doesn't ... and the was like an electrical crackling sound when I pushed the pump button coming from the board area ... the crackling stopped when the pump started.

This is sounding like a circuit board problem at this point. Especially with the crackling sound. If you can reach your circuit board, you may be able to visually spot a defect on a resistor or capacitor, or some discoloration in some areas. If so, replacing or repairing the board would be in order.

OH Message

I have a 15 year old Marquis spa that is displaying an OH message which I know indicates that the spa has shut down due to an overheat protection sensor. Ever since refilling the spa this fall the thermostat has not been reading correctly. To keep the water temp below 106 (independent thermometer reading) the control panel has been set at 91. When the OH sensor tripped the water temperature was ~104. Do I just need to switch out the spa sensor assembly?

It is a very good indication that your temperature sensor is failing. Usually when the temperature on the display is not matching what the actual water temperature is on the spa then it is usually the temp sensor. There should be a wiring diagram on the control door that will show you where the temp sensor plugs into the circuit board. You can then follow that cable to see where the sensor is mounted. Check first that it is clean and well seated, on both ends.

OH Error After Cool Down

I have a Jacuzzi Echo Z255, 2005 model year. I am getting an OH message on the topside. I killed power and flushed and cleaned the filter. After about an hour, I reinstalled the filter and turned the unit back on again. Temp set at 100, it read 96, didn't even turn the pump on before the OH started flashing again. Any thoughts?

It most likely could be a sensor. On that system the sensors may come as a set, high limit and temp sensor together. Please check the cable, Balboa will have their part number printed on it. Your topside panel, will not cause the spa to go into OH. Usually it will be one of the sensors, or the pump not pushing enough water flow through the heater while it is on (which may give a secondary FLOW error), or the main circuit board itself.

What does code F6 mean?

Spa was working fine, had to clean filter when I restarted it won't work when I press the pump button it pops up F6 - it's a four winds spa with a Balboa VS501 pack.

F6 is a filter cycle setting, not an error. You can program filter cycle durations for 2,4,6, or 8 hours. So F6 means pump should come on for a filter cycle every 12 hours and it would last for 6 hours long. You can program by hitting the temp button and then the jets button to scroll through.

Master Spa with LF Code

I have a Master Spa that is showing the code LF which the manual says its persistent low flow problems and shuts heater down leaving everything else working normal. Manual solution is turn power off for 15 mins and back on, which has worked in the past but now only for 10 to 15 mins and starts all over again. Water level is right; jets flow great when on.

Try removing the filter to see if it goes in to flow error. If not replace the filter. If still does, does your spa have a small circulation pump that runs 24 hours a day, if so verify that is running. Also check that all valves are open. If all seems good, you may have an adjustable pressure switch that can be lowered, or it could also be a faulty pressure switch or flow switch.

Catalina Spa OH Error

My spa keeps displaying the OH error. I have changes the Temp and High limit sensors and I have run it without the filter. The spa heater is new as well. Flow seems normal, all jets and valves are open. What else can I check?

If you have good water flow going through the heater from the pump and both sensors are new it may be the circuit board causing it. Double check that your sensors are seated properly, and although not usually the cause of an OH error code, make sure the equipment bay area is well ventilated.

Sundance Calypso FLO Error

Hi, my hot tub has a fairly new heater, and a newish United Spas C5 box/thermostat. It started making mystery noises during the cleaning cycle, but the jets would still work. Now it's stuck, shutting down right away since it's programmed to do the cleaning cycle next. It comes on for a few seconds, shows the FLO message, starts making a chunking noise, and then the circuit shuts it off. I've replaced the filter, drained and cleaned the tub, looked for obstructions in the pipes I could get to, it still does the same thing.

It sounds like your pump or motor is having an issue. It is going into 'FLO' because pump is shutting down before it should. I don't know if there may be something in the pump causing the noise and now has locked it up. Or if the motor is just locked up now. Close water valves and open up the union on the front of the pump, to check the impeller. Open up the back of the motor and try to spin the shaft in the center, or see if the impeller spins freely by hand. Check the motor vents for debris or anything that would keep the shaft/impeller from spinning. If something is found, the pump/motor may still be good, and if not, it may be time for a motor and/or pump replacement.

Balboa VS510SZ Controller HFL Error Code

I have a brand new Balboa VS510SZ controller heat pack installed. I keep getting error codes indicating low flow through the heater. I have 1 high speed pump. I have a clear 2" piece of plumbing from the spa to the pump to the heater and back into the spa. There is an extremely high amount of water coming through this plumbing so I know here is good flow. Does anyone know how all of my modes and dip switches should be set?

HFL is a low flow error message on Balboa. The Balboa controllers are designed to work with a two speed pump. The low speed is used to filter and heat the water and high speed when using the spa. Where is your pump plugged into the circuit board, at J23? To have the spa heat on demand and not just in a filter cycle it needs to be in the Standard mode. If you have the VS501 then dip switch #2 can be put in the on position and it will remain in standard mode. If you have the VS510 then you should have a mode button, and can switch from economy mode to standard using that button.

Sundance Altamar Stuck in LOC

My spa was working fine, then I had an electrical problem, so there was no power available for about 2 weeks. When I did get the power going again, the top LCD panel came back on and is locked and I am not able to unlock it. The display reads out 'COOL' or 'ICE' and the icon of pump 1 is on, but there is no action. Sometimes it gives the numbers of 15: 5 when trying to use the display. Is there a reset button on the control box? How would I know if it needed a new fuse?

There isn't a reset button on this spa. This may be a circuit board issue or topside panel, but you can't really test the topside without plugging a new one in. When the icon is displayed for the pump you can verify that the pump motor is getting voltage by testing with a voltmeter. If it is, then I would replace the pump or motor. When trying to unlock the topside panel are you pushing the display button, then mode, then the down button within 3 seconds? In this cases, you may want to call for service, they will have testing plugs and should have a spare topside to plug in to test.

PRR Code

I have an Artesian hot tub that is ten years old and i keep getting a code that says P R R. When that code comes up the heater stops working. When i reset to the power it works for an hour or so then the P R R code comes up again and stops heating. I have replaced the heater and the temperature probe.

The PRR error code means the temperature sensor is malfunctioning, on many control systems. Make sure the temperature sensor is making a good connection at the circuit board. If so, replace the temp

sensor, is that what you already replaced? If so, verify it's the correct sensor, clean connections and reattach.

Hot Tub Error OH, then SN3

I called and had a repairman come out. he said one of my motors needed a new impeller. So he fixed. Hot tub worked for a while however didn't heat. Then threw an overheat OH code then the SN codes and then wouldn't come one again. I replaced the entire spa heater, drained and refilled the spa, flipped the breaker and it threw an OH code then changed over to a SN3 code. Now that is all that comes up. So could it be the temperature sensor?

Yes, it sounds like the temp sensor. Make sure it is plugged in to the circuit board with a good connection. If so, you may need to replace the sensor. But before you do, remove your spa filter and test to see if SN code goes away, and make sure all valves and jets are open, to rule out flow related issues which can cause SN codes (sensor).

BullFrog DR Code

I have a 2003 Bullfrog spa. I replaced the heater element. Now I get a DR error code. The pump is pumping well, I have removed the filter but still no luck. I read that there can be an air lock but can't find how to fix.

DR code means 'Dry', so yes probably an air lock. If you just slightly loosen the pump union nut just enough to allow water to trickle out for a little bit, it will release any air that could be trapped in the pump. Then tighten back up and run to see if it improves. You can also remove the filter cartridge and force a hose down into the pipe and turn the hose on to assist in pushing out the air.

SUS Error on LA Spa

I keep finding the error SUS on my LA Spa Paradise model. The only way to get the error off is to turn off the main power breaker. It seems to happen maybe once a week.

I am not finding a SUS error code. Could it be SnS? If so that is usually an error code for a spa temp sensor. Please make sure your high limit and temp sensor are making a good connection at the circuit board and also check their wires to make sure there are no cuts with exposed wires on either of the two, or any other kind of damage.

Jacuzzi J-365 Flatlined ----

We shut off hot tub because water was too low and went to fill it next day and was empty. Flo control cracked and an ozone check valve was broken. Replaced flo control, removed the ozone part

and replace the line. It was working fine for a day and then flat lined on display, like this - - - - I shut off power and restart it doesn't get rid of it.

Is the heater very hot to the touch? Watchdog (the four dashes) is intended to come up and shut everything down because the high limit sensor on the heater has detected a temperature of 118 degrees. It could be that this spa sensor has failed or your heater is really getting very hot. Was it the Flo Switch that you replaced? If so make sure that is plugged into correct position at the circuit board. You may want to call service with this type of issue. The service techs have test plugs to determine if the sensor is causing or the circuit board.

I think it may be tech time, can't check the heater if I can't get it on. I replace the flo switch but used the old wire, I have a different square end that is hard to find.

If the Flo switch is not working properly and your circulation pump is not coming on it could allow the heater to come on and get very hot, then shut down with the four dashes. A spa flow switch is intended not to allow the heater to come on if the circulation pump has a problem so it won't dry fire. Flow switches are different from pressure switches, by the way.

Sundance Optima Plug Error

I recently bought a used 2003 Sundance Optima hot tub off a guy after it had set for the winter. I have replaced the heater, hi speed pump, and flow switch that were cracked from freezing. But now I can't get the FLO error message to go away to get the heater to come on. As soon as I turn it on the flo error flashes, then after an hour it will start flashing a Plug Error every time. I have taken the filter out and bled all the air out, and I can see that the flow switch is operating and has flow. I tried to bypass the heater relay to test it and see if the heater icon would come on but it doesn't.

When you get the Plug error code that usually means the topside panel connection is causing it. Turn the power off to the spa and re-plug the topside panel back into the circuit board. Do the same on the remote panel too and make sure cables to each still look good. If still get a Plug error message, look into the sockets for any debris or insects and inspect cord again for damage. You're close to getting this spa fixed!

FLO Error Coleman Spa

I have a 1999 Coleman 455 Seaspray with a 51764 circuit board. I received a FLO error, so I have removed filter, still get error - replaced pressure sensor, still get error. When I get the FLO error, I turn off the main breaker, wait a few and turn it back on. Turn the temp to 100 degrees and the tub heats up to 100 and the pumps turn off, and within 30 seconds, the FLO error appears. I have good flow on low speed (it's a brand new pump).

Do you have a circulation pump in addition to the two speed pump? Was the circuit board replaced recently? The reason I ask; it almost seems like it is looking for a circulation pump to be running after the main pump has shut off. A circulation pump is a small pump that runs 24 hours a day.

No, there is not a circulation pump, just two jet pumps. For the normal heating operation, pump 1 runs at low speed (it has great circulation at low speed). I've never replaced the circuit board. The Flo error randomly appeared and won't go away.

I know you said you replaced the pressure switch and did the continuity check but you can also try to bypass it by taking the two wire leads off the switch and taping them together, this will bypass. If still remains in FLO and you do have good constant water flow from pump in low speed then it may be the circuit board causing this. DO NOT leave those wires taped together on the pressure switch. This is just to test to see if that switch is causing this. Put the wires back on properly after the test. If it remains in FLO with the pressure switch bypassed, then I am leaning towards the circuit board as the issue. It would be rare that a board would cause this but is possible and since you have eliminated everything else that causes an FLO code.

Clearwater Spa OHH Code

Clearwater spa has an ohh error, turned spa off, let water cool down, restarted spa, ran through prime mode, water does not heat back up. When all 3 spa pumps are running, temp starts to increase but water does not heat. Where do I start first?

If your topside panel heat light is coming on, but the spa is not heating, then you should test for power going to the heater from the circuit board. If the heat light is not coming on then you aren't getting a call for heat and I would first start by removing the filter and run it to see if the heat light comes on. When the heat light is on you want to test across both power terminals at the heater if it is a 220V heater, not one leg to ground to verify you are getting good power. If you are not comfortable doing this, I would recommend having a repair person or electrician test it for you.

It is a 2008 Clearwater spyglass spa. All 3 pumps come on as normal but the circulation pump doesn't. The heat light does come on but goes off once the display reaches the set temperature. Right now I have it set to 95 and that's what it says it's at. Now if I change the temp to 100, the heat light comes on and the temp rises slowly until the display says 100 but the water doesn't actually heat up and the circulation pump isn't on, and then it goes to OHH code.

The circulation pump is usually the 'heater pump', and either the heater tried to come on but water was not being pushed through it from the circulation pump and overheated and shut down or the pump was on its way out and pushing the water very slow and it overheated. An OHH reading comes from the high limit sensor on the heater, which gets too hot, usually because the circulation pump is not operating, or not pushing enough water to keep the heater cool.

Vita Spa LC500 H1 Code

Can't seem to figure this one out. First H1 error occurred last week, tub seems to work fine, pumps and blowers work, water was at set temp (98). So I turned breaker off for 30 minutes, took a close look at the control board, checked wiring and connection. Flipped the breaker back on and it worked fine for a week. However the H1 error popped back up again today. And as before, pumps work and temp is correct. Anyone have any ideas?

H1 is a heater not working code, or specifically it means that power is not reaching the heater. If the heat indicator light is not working, and you also don't get a 240 v reading going to the heater from the board, when the meter leads are touching both heater terminals at the same time, the board or a relay on the board is bad. Inspect the board closely for burnt spots or anything unusual looking, which can confirm the diagnosis.