Balboa Fault Codes

Here are the common spa panel messages that you will encounter with your spa panel. The spa panel messages include common diagnostic messages, operational messages, and various other messages such as reminders.

This is NOT intended as a service guide or a means for you, as the consumer, to service your equipment in any way. This information is being provided for information purposes only. Any and all servicing should be performed by a licensed spa technician. Failure to properly service or install spa related components can result in serious injury or death. DO NOT remove the protective covers from any electrical enclosure, or attempt to service any related electrical device, unless you are a qualified electrician or service professional.

There is no guarantee expressed or implied that this technology can detect all instances of a real or potential problem with the equipment. There may be conditions that exist in which the spa control system will be unable to detect these conditions. As a responsible adult, always check the control panel display for errors and verify safe water temperature before using a spa, and before allowing children to use a spa. Safety should ALWAYS be your first consideration!

The Current Water Temperature is "Unknown" (- - - or - -) while in Economy or Sleep Mode.

Between Filter Cycles, while in the Economy or Sleep Heating Modes, the Pump has not turned ON and the Last Water Temperature is not Current. To read the Current Water Temperature, either Change to Standard Heating Mode or turn On the Heating Related Pump, and wait at least 2 Minutes.

- - F, - - C, or - - Message

The Actual Water Temperature is "Unknown" (- -).

Priming Mode has been Exited and the Pump has Not yet run for 1 or 2 Minutes (depending on Model) to Sample Actual Water Temperature. With the Heat Related Pump Running, wait at Least 2 Minutes for the Correct Actual Water Temperature to be Displayed. This is normal operation.

CFE or CONFIG ERROR Message

There is a "Configuration Error" (CFE) in the Dip Switches or Configuration Settings.

This Error Message indicates that the Dip Switch Numbers Displayed or the Configuration Setting Values Displayed on the Topside Panel, following the "CFE" Message, are in Conflict with each other. Contact your Dealer or Service Organization to check the Switch Numbers or Setting Values Displayed, and Correct as Necessary to Match the Equipment in the Spa System, or Continue for a Detailed Test Procedure.

1. Turn OFF the Power to the System and Turn it back ON again to put System into Priming Mode.
2. Press any "Cool", "Warm", or "Temp" Button to Exit Priming Mode.
3. After about 45 Seconds, Check for Error Messages on the Topside Panel Display. If there is No Error Message, Select "No Error Message" Below. If there is Now an Error Message, select Message Other than CFEor CONFIG ERROR below or contact your Dealer or Service Organization.

No Error Messages:

The "CFE" or "CONFIG ERROR" Configuration Error Appears to have been Corrected or is Intermittent.

If the Error Repeats, Retest the "CFE" or "CONFIG ERROR" Configuration Error or Call Balboa Technical Service for Assistance.

CrC or CHKSUM FAIL Message

"Cyclic Redundancy Code" (CrC) Checksum Error.

A "Cyclic Redundancy Code" (CrC) is a type of checksum algorithm that takes a string of data bytes and calculates from it a few bytes (the checksum) that depend on the entire file. The idea is that, if anything in the file changes, the checksum will change and Result in a CrC Error.

At Power-Up, the System has Failed the Program Checksum Test. This indicates a Problem with the Firmware (Operation Program), or the System is Operating on Unreleased Firmware (Sample or Prototype System). Try Turning the Power OFF and back ON again, or contact your Dealer or Service Organization.

1. Turn OFF the Power to the System and Turn it back ON again to put System into Priming Mode.
2. After about 45 Seconds, Check for Error Messages on the Topside Panel Display. If there is No Error Message, Select "No Error Message" Below. If there is Now an Error Message, select Message Other than CrC or CHKSUM FAIL below.

No Error Messages

1. If there is Now a Message Other than a "CrC" or "CHKSUM FAIL" Error Message, that Message will Now have to be Diagnosed. Select "Message Other than CrC or CHKSUM FAIL" Below. If there is Now a "CrC" or "CHKSUM FAIL" Error Message, contact your Dealer or Service Organization.

DETAILED PRIMING INSTRUCTIONS

In Priming Mode, Nothing turns on Automatically*.

*Note: On the VS/GS Model, the Circ Pump will be on, and on some EL/GL Models, a continuous filtration pump** turns on automatically. Also, on the VS/GS Models, Freeze Protect Mode overrides Priming Mode, and All pumps will be on in Freeze Protect Mode.

The purpose of Priming Mode is to allow the user to manually verify that the pumps are primed (which typically requires observing the output of each pump separately, which is generally not possible in normal operation). Priming Mode lasts 4 minutes, but you can exit it earlier by pressing any Temp button.

**Note: The term "circ pump" refers to a low-speed-only pump that is used for heating and possibly also for filtering. If a continuously running low-speed-only pump is only used for filtering (not for heating), that is not called a circ pump, but instead may be referred to as a "continuous filtration pump".

You should verify priming on all pumps the first time you fill the spa with water, as well as each time you refill the spa with water (after having previously drained it). You can skip Priming Mode if you're restarting the spa for some other reason (without the water having been drained since the last time the spa functioned properly).

If you have a Circ Pump, do this first (EL version):

- Push the Jets 1 button once. This turns on pump 1, and also turns on the circ pump.

- Verify that both pump 1 and the circ pump are running and that water is flowing out of both their outlets into the spa. If they're not, or you're not sure that both are (because you can't tell whether you have two separate flows at different rates or just one flow), momentarily turn both pumps off and on (by pressing Jets 1 multiple times) to help the pumps to prime. Do not do this more than 5 times. Do not let the pumps run for a total of more than 2 minutes if they haven't primed by then. Observe the panel display as you do this. If you haven't successfully primed both pumps by the time the Priming Mode display (Pr or PRIMING MODE depending on panel) ends, turn off the spa IMMEDIATELY.

If after two minutes you cannot verify that water from the circ pump is flowing because the water motion from pump 1 obscures it, press the Jets 1 button again until all pumps turn off. Then press Temp once to exit Priming Mode. Unless the water is very cold, only the circ pump will start for one minute. If you do not see water flowing from the circ pump outlet, IMMEDIATELY turn off power to the spa (as an attempt at heating will occur within a minute of the circ pump attempting to start). (It's 2 minutes on the VS/GS, and 2 minutes on EL/GL versions earlier than 21.) You cannot cycle the circ pump once you've exited Priming Mode, so go back to the previous step to try to prime it.

DETAILED PRIMING INSTRUCTIONS CONTINUED

If you had to turn off power to the spa before both pumps primed, leave the spa off (with water in it) for at least a couple hours, then try the whole procedure again. (Often just giving the water plenty of time to seep into every corner of the plumbing will take care of the problem.)

Note: The circ pump turns on by itself (without you needing to press a button). So before pressing any buttons, verify that water is flowing from the circ pump outlet. If it's not flowing after two minutes, turn the power off and let the spa rest for a few hours, then repeat. If water is flowing from the circ pump outlet, proceed to test all the other pumps.

If the Circ Pump is primed, or if you Do Not have a Circ Pump, then:

- Repeat the action above for each numbered pump, one at a time, by pushing its corresponding Jets button. If a given pump has two speeds, press its Jets button a second time to set it to high speed. (High speed should be used for priming.)

- When you have verified a pump is successfully primed, press its Jets button again to turn it off. Then continue on to the next pump.

- If the display exits Priming Mode and shows dashes or a temperature or a mode indication (such as Std or Ecn or SLP) before you have finished verifying that all your pumps are primed, turn off the power at the main power panel IMMEDIATELY, then turn it back on, to initiate a new pump priming mode.

Important: A pump should not be allowed to run without priming for more than 2 minutes. Under NO circumstances should a pump be allowed to run without priming beyond the end of the 4 minute Priming Mode. Doing so may cause damage to the pump and cause the system to go into an overheat condition.

If after repeated attempts (hours apart) you still cannot get all pumps to prime, consult a qualified spa technician.

Note: On the VS/GS, if you're starting with very cold water, you may not be able to verify priming easily because freeze overrides priming mode and turns on all pumps at once (and doesn't allow you to turn pumps on and off).

dr or HEATER MAY BE DRY WILL RETEST SHORTLY Message

There is Possibly a "Dry" (dr) Heater. Check for Water Level, Flow Restrictions, Closed Valves, Air Bubbles, and Pump Prime, or contact your Dealer or Service Organization.

Check for All of the following Conditions:

1. Low Water Level.
2. Blocked Suction Fitting.
3. Blocked Skimmer.
4. Dirty Filter.
5. Too Many Closed Jets.
6. Closed Slice Valve.
7. Heat Related Pump Not Running.
8. Heat Related Pump Not Primed.

drn or DRAINING Message

While in Standby Mode, "Drain" (drn) Mode has been Activated.

The "Jets 1" Button has been Pressed while in the Standby Mode, and Pump 1 has been turned ON to Help Drain the Spa. All Automatic Functions Remain OFF during this time. Press Any Button other than "Jets 1" to Exit Drain Mode and Standby Mode, and Return to Normal Operation.

drY, dY, or HEATER DRY SERVICE REQD Message

There is a Verified "Dry" (drY or dY) Condition in the Heater.

The "dr" or "HEATER MAY BE DRY WILL RETEST SHORTLY" Fault has occurred 3 times in a row without a successful Heating Cycle and Spa Functions are Disabled. There is Not enough Water in the Heater to Start it. After the Problem has been Resolved, you Must Press Any Button to Reset and Restart Heater Start Up. Check for Water Level, Flow Restrictions, Closed Valves, Air Bubbles, and Pump Prime, or contact your Dealer or Service Organization.

Check for All of the following Conditions:

1. Low Water Level.
2. Blocked Suction Fitting.
3. Blocked Skimmer.
4. Dirty Filter.
5. Too Many Closed Jets.
6. Closed Slice Valve.
7. Heat Related Pump Not Running.
8. Heat Related Pump Not Primed.

Ecn or Ec Message

If the Ecn or Ec Message is Alternating with the Water Temperature on the Display, the Spa is Operating in the Economy Heating Mode.

If the Ecn or Ec Message is ON Solid (Not Flashing) on the Display, the Spa is Operating in the Economy Heating Mode, but there is No current water temperature because the Spa is between Filter Cycles.

Ecn or Ec is Alternating with Temp:

The Spa is Operating in the "Economy" (Ecn or Ec) Heating Mode.

The Water Temperature is Sampled Only during Programmed Filter Cycles. The Heater will Only operate and Heat up to Set Temperature during the Filter Cycles. The Water Temperature will probably drop Below Set Temperature between Filter Cycles. Other Heating Modes are Standard, Standard in Economy, and Sleep Modes.

Ecn or Ec is ON Solid (Not Flashing):

The Current Water Temperature is "Unknown" (- - - or - -) while in Economy or Sleep Mode.

Between Filter Cycles, while in the Economy or Sleep Heating Modes, the Pump has not turned ON and the Last Water Temperature is not Current. To read the Current Water Temperature, either Change to Standard Heating Mode or turn On the Heating Related Pump, and wait at least 2 Minutes.

gFI or GFCI FAILURE Message

The Control System Could Not Trip the "GFCI" (gFI).

The spa has determined that a GFCI is NOT properly installed in the circuit providing power to the spa, because an attempt was made to trip the GFCI and the expected power shut-down did not occur.

If the spa is left in this state, no user functions will operate, but Freeze Protection remains active.

Cycling the power will clear the gFI fault and run the test again.

Once a properly installed GFCI is detected and trips at the exact moment determined by the system, the spa considers the test passed. On the subsequent power-ups, the GFCI test is skipped because the proper flag has been set in the software.

Note: The GFCI Test Feature should only be Enabled in the United States and Canada. Call Balboa Technical Service for Additional Help if this Spa is Installed in a country other uhan the United States or Canada.

Ground Fault Circuit Interrupter (GFCI) Trip Feature

Along with the EL Mach 3 System Software, a new GFCI Trip Feature is now available.

The purpose of this feature is to:

1. Verify that the spa has been properly installed in conjunction with a GFCI.
2. Allow the System to trip the GFCI in the event of an extreme overheat that is characterized by a stuck, or "welded" pump relay.

Note: Even though the GFCI Trip Feature may be available on a certain system, it can be disabled by OEM request.

Basic Functions When GFCI Trip is Enabled

The spa, when powered up at the customer's installation, will begin a GFCI Test countdown that can be factory set from 1 - 7 days. The GFCI can also be tripped manually via the Edit Menu interface titled gFC.

Button press instructions for initiating a GFCI trip manually can be found HERE.

If the spa is not installed with a GFCI and the system fails to sense a trip, the system will not allow the spa to operate unless a GFCI is properly installed.

If the spa water reaches a temperature of 110 degrees F, a "Stuck Relay Timer" will begin to count from 0 hours, while the system monitors water temperature over time.

If the spa goes through the typical Overheat Errors and continues on to exhibit specific temperature-rise-over-time requirements, the system will assume a pump relay is stuck ON, and has no ability to shut it off. In this condition, an attempt is made to trip the GFCI, which would shut off all power to the spa.

HFL, HL, or HTR FLOW LOW Message

Possibly the "Heater Flow is Low" (HFL or HL).

During Heating, this message indicates a Possible Low Flow Condition. There may Not be Enough Water Flow through the Heater to carry the Heat Away from the Heating Element. Heater Start Up will begin again after about 1 Min. Check for Water Level, Flow Restrictions, Closed Valves, Air Bubbles, and Pump Prime, or contact your Dealer or Service Organization.

Check for All of the following Conditions:

1. Low Water Level.
2. Blocked Suction Fitting.
3. Blocked Skimmer.
4. Dirty Filter.
5. Too Many Closed Jets.
6. Closed Slice Valve.
7. Heat Related Pump Not Running.
8. Heat Related Pump Not Primed.

HOT or HOT-CALL SVC Message

A Pump appears to have been stuck ON before a GFCI trip, causing an extreme overheat.

If the extreme overheat conditions are determined, a spa with the GFCI Trip Feature enabled will trip the GFCI and shut down the power to the spa. If the GFCI does not trip for some reason, the gFI fault will appear and the HOt flag will be set.

If the spa is subsequently powered down and then powered up again, the HOt message will appear on the display and the spa will not be allowed to operate until a technician evaluates the spa and resets the HOt fault.

Note: The HOt message indicates the spa WAS in an extremely serious condition before power was shut off to the spa. It may be possible for a stuck relay to free itself after the power cycle, but the spa cannot clear the the HOt message without starting up in Test Mode first. A service technician must carefully evaluate the pumps and circuit board before allowing the spa to run again.

Check For Suction Blockage:

1. If the Spa with the "SF" Safety Fault Error Message has a pump suction blockage switch, Select "Spas with Pump Suction Blockage Switch" Below. If Not, Continue to Next Step.
2. Press Any Button to Reset and Clear the Error Message.
3. If the "SF" Error Message is not cleared from the topside panel display, contact your Dealer or Service Organization.

Spas with Pump Suction Blockage Switch:

1. The "SF" Safety Fault Error Message indicates that the Vacuum Switch has closed, indicating that there has been a Suction Problem or a Possible Entrapment Situation Avoided.
2. Press Any Button to Reset and Clear the Error Message.

ICE, IC, or FREEZE COND Message

A Potential Freeze Condition has been Detected, and "Ice" (ICE) in the System is being Prevented.

44°F (6.7°C) or Lower has been Detected at the Lowest Temp Sensor, or the Aux Freeze Switch has Closed, and All Pumps and Blower are Activated. All Pumps and Blower are ON for at least 4 Minutes After Temp is 45°F (7.2°C) or Above at the Sensors, or when the Aux Freeze Switch Opens. This is an Operational Message, Not an Error Indication. Either wait for the Potential Freeze Condition to End, or contact your Dealer or Service Organization.

LF or LOW FLOW Message

There is a Verified "Low Flow" (LF) Condition in the Heater.

The "HFL", "HL", or "HTR FLOW LOW" Fault has occurred 5 times in the Last 24 Hours or Less, and Heating has been Disabled. There is Not Enough Water Flow through the Heater to carry the Heat Away from the Heating Element. After the Problem has been Resolved, you Must Press Any Button to Reset and Restart Heater Start Up. Check for Water Level, Flow Restrictions, Closed Valves, Air Bubbles, and Pump Prime, or contact your Dealer or Service Organization.

Check for All of the following Conditions:

1. Low Water Level.
2. Blocked Suction Fitting.
3. Blocked Skimmer.
4. Dirty Filter.
5. Too Many Closed Jets.
6. Closed Slice Valve.
7. Heat Related Pump Not Running.
8. Heat Related Pump Not Primed.

OHH, HH, or HTR TEMP LMT SERVICE REQD Message

There is an "Over Heated Heater" (OHH or HH) Condition.

One of the Water Temp Sensors has detected 118°F (47.8°C) In the Heater and Spa Functions are Disabled. You Must Press Any Button to Reset when Water is below 108°F (42.2°C). Check for Water Level, Flow Restrictions, Closed Valves, Air Bubbles, and Pump Prime, or Continue for a Detailed Test Procedure.

WARNING:

A Heater Overheat Error Message may indicate Excessively High Heater Temperatures which can Scald or Burn!

If the Heater is Not Cool Enough to Safely Service, allow the Heater to Cool before Continuing Testing.

A Heater Overheat Condition that generates an "OHH" Error Message is Most Likely the result of a Low Flow Condition. Therefore, "OHH" is considered to be a Flow Related Error.

Check for All of the following Conditions:

1. Low Water Level.
2. Blocked Suction Fitting.
3. Blocked Skimmer.
4. Dirty Filter.
5. Too Many Closed Jets.
6. Closed Slice Valve.
7. Heat Related Pump Not Running.
8. Heat Related Pump Not Primed.
9. Contact your Dealer or Service Organization.

OHS, OH, or SPA TEMP LMT Message

There is an "Over Heated Spa" (OHS or OH) Water Condition.

One of the Water Temp Sensors has detected 110°F (43.3°C) Incoming Water Temp and Spa Functions are Disabled. System will Auto Reset when Water Temp is below 108°F (42.2°C). Check for Extended Pump Operation or High Ambient Temp, or contact your Dealer or Service Organization.

Spa Water Cool Down

- In order for the Spa Water Overheat Error Message to Automatically Reset and Clear, the Spa Water Must Cool to below 108°F (42.2°C).
- Check the Topside Panel Display to see if the "OHS", "OH", or "SPA TEMP LMT" Spa Water Overheat Error Message has Cleared. If the Error Message has Not Cleared, the Spa Water is still too Hot to Continue Testing.
- Either Wait for the Spa Water to Cool Below 108°F (42.2°C), or Exit Now and Retest at a Later time.

PHH or PH IS HIGH LOWER PH Message

At the pH Sensor, the "pH Level is High" (PHH).

With a pH Sensor Installed in the System, the pH Level is Above 7.8 and needs to be Corrected. Add pH Decreaser according to Manufacturers Instructions.

Note: If you do Not have a pH Sensor installed in the Spa System, you should Never get this Message. Contact your Dealer or Service Organization.

PHL or PH IS LOW RAISE PH Message

At the pH Sensor, the "pH Level is Low" (PHL).

With a pH Sensor Installed in the System, the pH Level is Below 7.2 and needs to be Corrected. Add pH Increaser according to Manufacturers Instructions.

Note: If you do Not have a pH Sensor installed in the Spa System, you should Never get this Message. Contact your Dealer or Service Organization.

Pr or PRIMING MODE TAKES 4 MIN Message

The Spa is Operating in "Priming" (Pr) Mode.

The Spa has just been powered up and is in Priming Mode for 4 Minutes. Pumps and Blower can be turned ON and OFF to Remove any Air from the Heater. On EL and GL Systems Only, equipped with a "Mode" Button, the Ozone Generator can be Turned ON for 15 Seconds and OFF by using the "Mode" Button. No Automatic Functions will turn ON during this time, and the Heater will Not Start. This is Not an Error Message. Wait 4 Minutes or Press any Temp Related Button to Exit Priming Mode to Normal Operation.

Note: On some Early VS and GS Systems (prior to Version 23) equipped with a "Mode" Button, the Ozone Generator can be Turned ON for 15 Seconds and OFF by using the "Mode" Button.

SEE DETAILED PRIMING INSTRUCTIONS FOR ADDITIONAL INFORMATION

PSt or PERSIST FAIL Message

The "Persistent" (PSt) Memory Cannot be Read.

At Power-Up, part or all of the System Board Persistent Memory could Not be Read. The Persistent Memory Retains all of the Programming Information, such as Filter Cycles, Set Temp, User Settings and Configuration Settings, and does not require any form of Power or Battery for Retention. This indicates a Possible Problem with the System Board. Try Turning the Power OFF and back ON again, or contact your Dealer or Service Organization.

1. Turn OFF the Power to the System and Turn it back ON again to put System into Priming Mode.

2. After about 45 Seconds, Check for Error Messages on the Topside Panel Display. If there is No Error Message, Select "No Error Message" Below. If there is Now an Error Message, select Message Other than PSt or Persist Fail below.

No Error Messages

1. If there is Now a Message Other than a "PSt" or "PERSIST FAIL" Persistent Memory Error Message, that Message will Now have to be Diagnosed. Select "Message Other than PSt or PERSIST FAIL" Below. If there is Now a "PSt" or "PERSIST FAIL" Persistent Memory Error Message, contact your Dealer or Service Organization.

rt9 or TEST GFCI Message

Time to "Test GFCI Reminder" (rtg).

Appears Every 30 Days*. Test and Reset the G.F.C.I. per Manufacturers Instructions. Press "Mode" Button to Clear Message. All Reminder Messages can be Disabled through the Topside Panel Users Menu.

* Note: The Balboa Default Interval is 30 Days, but some Spa Brands or Models may be Different.

rCA or CHANGE MINERAL CARTRIDGE Message

Time to "Change Mineral Cartridge Reminder" (rCA)

Install a New Mineral Cartridge per Manufacturers Instructions. Press "Mode" Button to Clear Message. All Reminder Messages can be Disabled through the Topside Panel Users Menu.

Note: The Balboa Default is to have this Message Disabled. Some Spa Brands or Models may have this Message Enabled, and the Interval between these Messages will be whatever the Spa Manufacturer has selected.

rCH or NEW FILTER Message

Time to "Change Filter Reminder" (rCH)

Appears Every 365 Days*. Install a New Filter Cartridge per Manufacturers Instructions. Press "Mode" Button to Clear Message. All Reminder Messages can be Disabled through the Topside Panel Users Menu.

* Note: The Balboa Default Interval is 365 Days, but some Spa Brands or Models may be Different.

rCL or CLEAN FILTER Message

Time to "Clean Filter Reminder" (rCL).

Appears Every 30 Days*. Remove, Clean, and Reinstall Spa Filter Cartridge per Manufacturers Instructions. Press "Mode" Button to Clear Message. All Reminder Messages can be Disabled through the Topside Panel Users Menu.

* Note: The Balboa Default Interval is 30 Days, but some Spa Brands or Models may be Different.

rCO or CLEAN COVER Message

Time to Clean "Cover Reminder" (rCO).

Appears Every 180 Days*. Clean and Condition Spa Cover per Manufacturers Instructions. Press "Mode" Button to Clear Message. All Reminder Messages can be Disabled through the Topside Panel Users Menu.

* Note: The Balboa Default Interval is 180 Days, but some Spa Brands or Models may be Different.

rdr or DRAIN WATER Message

Time to "Drain Spa Water Reminder" (rdr).

Appears Every 90 Days*. Drain and Refill the Spa Water per Manufacturers Instructions. Press "Mode" Button to Clear Message. All Reminder Messages can be Disabled through the Topside Panel Users Menu.

* Note: The Balboa Default Interval is 90 Days, but some Spa Brands or Models may be Different.

rPH or CHECK PH Message

Time to Check "pH Level Reminder" (rPH).

Appears Every 7 Days*. Test and Adjust pH Level per Manufacturers Instructions. Press "Mode" Button to Clear Message. All Reminder Messages can be Disabled through the Topside Panel Users Menu.

* Note: The Balboa Default Interval is 7 Days, but some Spa Brands or Models may be Different.

rSA or CK SANITIZER Message

Time to Check "Sanitizer Level Reminder" (rSA).

Appears Every 7 Days*. Test and Adjust Sanitizer Level per Manufacturers Instructions. Press "Mode" Button to Clear Message. All Reminder Messages can be Disabled through the Topside Panel Users Menu.

 * Note: The Balboa Default Interval is 7 Days, but some Spa Brands or Models may be Different.

rtC or RTC FAILURE Message

The "Real Time Clock" (rtC) Cannot be Read.

At Power-Up, the System Board Real Time Clock could Not be Read. The Real Time Clock keeps the Current Time of Day. This indicates a Possible Problem with The System Board. Try Turning the Power OFF and back ON again, or Continue for a Detailed Test Procedure.

1. Turn OFF the Power to the System and Turn it back ON again to put System into Priming Mode.
2. After about 45 Seconds, Check for Error Messages on the Topside Panel Display. If there is No Error Message, Select "No Error Message" Below. If there is Now an Error Message, select Message Other than rtC or RTC FAILURE below.

No Error Messages

1. If there is Now a Message Other than a "rtC" or "RTC FAILURE" Real Time Clock Error Message, that Message will Now have to be Diagnosed. Select "Message Other than rtC or RTC FAILURE" Below. If there is Now a "rtC" or "RTC FAILURE" Real Time Clock Error Message, contact your Dealer or Service Organization.
2.

rtr or TREAT WOOD Message

Time to "Treat Wood Reminder" (rtr).

Appears Every 180 Days*. Clean and Condition Wood per Manufacturers Instructions. Press "Mode" Button to Clear Message. All Reminder Messages can be Disabled through the Topside Panel Users Menu.

* Note: The Balboa Default Interval is 180 Days, but some Spa Brands or Models may be Different.

SAH or SANITIZER HIGH Message

At the ORP Sensor, the "Sanitizer Level is High" (SAH).

With an ORP Sensor Installed in the System, the Sanitizer Level is Above 830 and needs to be Corrected. Remove the Spa Cover and allow Sanitizer to Dissipate, or do a Partial Water Change.

Note: If you do Not have an ORP Sensor installed in the Spa System, you should Never get this Message. Contact your Dealer or Service Organization.

SAL or SANITIZER LOW Message

At the ORP Sensor, the "Sanitizer Level is Low" (SAL).

With an ORP Sensor Installed in the System, the Sanitizer Level is Below 740 and needs to be Corrected. Add Sanitizer according to Manufacturers Instructions.

Note: If you do Not have an ORP Sensor installed in the Spa System, you should Never get this Message. Contact your Dealer or Service Organization.

SbY or STANDBY MODE Message

The Spa is Operating in the "Standby" (SbY) Mode.

All Automatic Spa System Functions are Disabled so that Pumps and Blower will not turn ON Automatically. This Mode allows the User to Replace or Clean a Pressure Side Filter Cartridge without Equipment turning ON unexpectedly. Press any Button except "Jets 1" to Exit and Return to Normal Operation.

SE or STANDARD ECONOMY Message

The Spa is Operating in the "Standard in Economy" (SE) Heating Mode.

The "Jets" Button has been Pressed While the Spa is Operating in the Economy Heating Mode, and the System has Temporarily Switched to the Standard Mode. The System will stay in the Standard Mode for 1 Hour unless the "Mode/Prog" Button is Pressed on a Panel with a "Mode/Prog" Button, or the "Temp" Followed by "Light" Buttons are Pressed on a Panel Without a "Mode/Prog" Button, to return to Economy Mode. The Standard in Economy Mode allows the System to Heat the Water when the Jets are being used between Filter cycles, while in the Economy Mode.

SF or SAFETY FAULT Message

There is a "Safety Fault" (SF) condition on a spa with a pump suction blockage switch.

On a spa with a pump suction blockage switch, the vacuum switch has closed indicating that there has been a suction problem or an entrapment avoided. Press any button to reset after the problem has been corrected, or or contact your Dealer or Service Organization.

1. If the Spa with the "SF" Safety Fault Error Message has a pump suction blockage switch, Select "Spas with Pump Suction Blockage Switch" Below. If Not, Continue to Next Step.

Spas with Pump Suction Blockage Switch:

1. The "SF" Safety Fault Error Message indicates that the Vacuum Switch has closed, indicating that there has been a Suction Problem or a Possible Entrapment Situation Avoided.
2. Press Any Button to Reset and Clear the Error Message.
3. If the "SF" Error Message is not cleared from the topside panel display, contact your Dealer or Service Organisation.

SLP or SL Message

If the SLP or SL Message is Alternating with the Water Temperature on the Display, the Spa is Operating in the Sleep Heating Mode.

If the SLP or SL Message is ON Solid (Not Flashing) on the Display, the Spa is Operating in the Sleep Heating Mode, but there is No current water temperature because the Spa is between Filter Cycles.

Ecn or Ec is Alternating with Temp:

The Spa is Operating in the "Economy" (Ecn or Ec) Heating Mode.

The Water Temperature is Sampled Only during Programmed Filter Cycles. The Heater will Only operate and Heat up to Set Temperature during the Filter Cycles. The Water Temperature will probably drop Below Set Temperature between Filter Cycles. Other Heating Modes are Standard, Standard in Economy, and Sleep Modes.

Ecn or Ec is ON Solid (Not Flashing):

The Current Water Temperature is "Unknown" (- - - or - -) while in Economy or Sleep Mode.

Between Filter Cycles, while in the Economy or Sleep Heating Modes, the Pump has not turned ON and the Last Water Temperature is not Current. To read the Current Water Temperature, either Change to Standard Heating Mode or turn On the Heating Related Pump, and wait at least 2 Minutes.

SnA, SA, or SENSOR A SERVICE REQD Message

"Sensor A" (SnA or SA) is Not Operating Correctly.

The Sensor Connected to the "Sens.A" Connector on the System Board may have failed and Spa Functions are Disabled. Contact your Dealer or Service Organization.

A Sensor Failure Message may indicate Excessively High Heater Temperatures which can Scald or Burn!

If the Heater is Not Cool Enough to Safely Service, allow the Heater to Cool before Testing.

Snb, Sb, or SENSOR B SERVICE REQD Message

"Sensor B" (Snb or Sb) is Not Operating Correctly.

The Sensor Connected to the "Sens.B" Connector on the System Board may have failed and Spa Functions are Disabled. Contact your Dealer or Service Organization.

A Sensor Failure Message may indicate Excessively High Heater Temperatures which can Scald or Burn!

If the Heater is Not Cool Enough to Safely Service, allow the Heater to Cool before Testing.

SnS or Sn Message

If the SnS or Sn Message is Alternating with the Water Temperature on the Display, it is a Possible Sensors Out of Sync Message.

If the SnS or Sn Message is Blinking or Flashing OFF and ON without showing Water Temperature, it is a Verified Sensors Out of Sync Message.

SnS or Sn is Alternating with Temp:

Possibly the "Sensors are out of Sync" (SnS or Sn) with Each Other. With the the Pump ON, prior to Heater ON, the Sensors differ by more than 2°F (1.0°C), indicating one or both Sensors are several degrees off. The Sensors are Possibly Out of Sync with Each Other, or Not Indicating Close to the Same Temperature at Both Sensors. Monitoring the Sensors will Continue for 1 Hour. Contact your Dealer or Service Organization.

SnS or Sn is Blinking ON and OFF:

There is a Verified "Sensors out of Sync" (SnS or Sn) with Each Other Condition. The "SnS", "Sn", or "SENSOR SYNC" Fault has occurred for more than 1 hour, indicating one or both Sensors are several degrees off, and Spa Functions are Disabled. The Sensors are Verified Out of Sync with Each Other, or Not Indicating Close to the Same Temperature at Both Sensors. Contact your Dealer or Service Organization.

Std, St, or STANDARD Message

The Spa is Operating in the "Standard" (Std or St) Heating Mode.

Between Filter Cycles, the Water Temperature is Sampled every 30 Minutes. The Heater and Pump will Operate Any time the Thermostat Demands Heat. The Water Temperature is Always maintained within 1°F (.5°C) of Set Temperature. Other Heating Modes are Economy, Standard in Economy, and Sleep Modes.

Note: On the Panels that Display the "Std" or "St" Messages, the Message will Only be Displayed for a Few Seconds After the Heating Mode is Changed to Standard from a different Heating Mode.

StU or STUCK ON Message

A Pump appears to be "Stuck" (StU) ON, and the Water is Too Hot.

If the spa is configured with the GFCI Trip Feature disabled or the system is not capable of the feature (GL Systems) the spa will not be able to shut itself down via a GFCI trip. In this case, if the extreme conditions are determined, the spa will display the StU message until the spa is shut down It will also set the HOt flag (HOt does not appear in the display).

In this condition, the water temperature is most likely dangerously hot!

The spa must be shut down immediately!

If the spa is powered up again the HOt message will appear on the display and the spa will not be allowed to operate until a technician evaluates the spa and resets the HOt fault by powering up in Test Mode (DIP Switch A1 on the System Board).

Note: The StU or HOt messages indicate the spa IS or WAS in an extremely serious condition. It may be possible for the stuck relay to free itself after the power cycle, but the spa cannot clear the the HOt message without starting up in Test Mode first. A service technician must carefully evaluate the pumps and circuit board before allowing the spa to run again.

Check For Suction Blockage:

1. If the Spa with the "SF" Safety Fault Error Message has a pump suction blockage switch, Select "Spas with Pump Suction Blockage Switch" Below. If Not, Continue to Next Step.

Spas with Pump Suction Blockage Switch:

1. The "SF" Safety Fault Error Message indicates that the Vacuum Switch has closed, indicating that there has been a Suction Problem or a Possible Entrapment Situation Avoided.
2. Press Any Button to Reset and Clear the Error Message.
3. If the "SF" Error Message is not cleared from the topside panel display, contact your Dealer or Service Organization.

Heat Related Pump Not Running.