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Spa Control System Error Codes

There are many brands and models of spa control systems on the market. The majority have used or do use either the same or similar error codes for a similar symptom. Rather than list error codes under equipment or spa brands, we have decided to list them alphabetically and numerically for ease of identification.

In most cases you should either contact us for further diagnostics, or contact a local qualified spa service technician to resolve your problem quickly and accurately.

The following codes cover brands such as: Gecko Electronics, Balboa Instruments, Hurricane, Sundance Spas, Hercules, Brett Aqualine, Splash Pool Accessories, Vita, Spaquip, Ampac, Onga, Dimension One, Sweetwater, and many more.

There are many other error and operational codes not listed here - please contact us if you need further info or data, or if you error codes that we can add.

Causes of the common following fault codes

Flow/Pressure Switch Open Circuit (most common fault) - Dirty filters (the most common cause), blockage, switch failure, low water level, pump failure, broken wire

Flow/Pressure Switch Closed Circuit - Switch failure, switch adjustment required, debris in switch, splashed/leaking water shorting connectors

Hi-Limit Fault - Dirty filters, low flow, low water level, blockage, sensor fault, water entry to sensor or connector

Temperature Sensor Fault - Sensor fault, pump heat interference, water entry to sensor or connector/corrosion

Over Heat Fault - Same as sensor fault - sensor reads extremely high temperature 45C-48C. Spa usually shuts down

A major cause of many of these faults can often be a result of vermin damage!

Error Code	Description
BJ2P	Hi-Limit - water temp too high
C4.4	Hi- Limit
Cd, CLd	Freeze Condition
CE 01	Stuck Touchpad button
CE 02	No controller Data Communication
CE 03	Temperature sensor fault
CE 04	Water Sensor/Pressure switch fault
CE 05	Over Temperature Condition
CE 06	High Limit manual reset Klixon tripped
CE 07	Stuck Relay
CE 08	Temp Sensor Fault - (Spaquip Digital 2000 MK1 sensor)
CE 09	Water Prime Fault - Lack of water
CoLd	spa heater temp below 40F
Cool, COOL, COL	Water is 11C below set point - not a fault
DR, dr, dy, DRY	Heater dry - insufficient water fault
Er0, Er1	Temperature sensor faulty
Er2, Er3	Hi-Limit fault
Er4	Flow/Pressure switch short circuit
Error 3 - Spaquip	Stuck touchpad button
Error 4	Water sensor fault
Error 5	Over temperature
Error 6	Klixon Tripped - over temp
Error 7	Stuck Relay
Error 8	Temperature sensor fault
Err	Software Program Fault
E###	pH probe out of calibration
E0	Short circuit temperature sensor
E1	Open circuit temperature sensor
E2	short circuit/closed high limit sensor

E3	Open circuit high limit sensor
E4	Short circuit/closed pressure/flow switch
E7	Improper electrical connection
FLO, Flo, FL1	Flow/pressure switch open circuit - lack of flow or pressure or for Sundance/Spa Builders/Balboa - Flow switch is closed circuit
FLC, FL2	Flow/pressure switch closed circuit - debris in switch, perforated diaphragm, faulty
FL	Pressure/flow switch failure
FLO (flashing)	Flow switch open circuit - Sundance/Spa Builders/Balboa
FrE, Fr, FP	Freeze Condition
HiLi, HLEr	Water temperature above acceptable range
HL, HFL, HH, OHH	High limit sensor reading 45-48C, or above - check flow
Hold	Panel buttons pressed too many times too quickly
HOT	PCB thermistor above 82C
HP	Electronic controller error
H2O	Water Prime Fault - lack of water
ICE, IC	Freeze Condition
ILOC	Interlock failure, also caused by faulty ozonators, pumps and equipment
LEH	Temperature Sensor Fault
LF	Low Flow Fault
LO	Freeze Condition
LOC	Control Panel functions Locked
LS=0, LS=S	Multiple causes - open circuit sensor, faulty panel connection, improper voltage, etc
L1	Panel Lock
L2	Panel Lock
OH, OHS, oH	Overheat Condition 43-45C
OP	Open circuit sensor
P	Power overload – excess current draw
pd, Pd	Running on battery - power supply interrupted
PLUG	Sundance/Spa Builders Service Technician's Test Plug accidentally left connected to PCB
PnL, Pnl	Communication disrupted between touchpad and PCB
Pr	System Priming - not a fault
Prh	High limit sensor fault

Prr	Temperature sensor fault
PS	Flow/Pressure switch failure
PSoC, PSoL, PSoH	Pressure switch open circuit with Circulating, Low Speed, or High speed pumps
SA, SnA, SnH, Sb, Snb, Snt	Sensor Open Circuit or faulty - SnH - Hi Limit, SnT - Temp sensor
SEoP	Sensor Open Circuit
SESH	Sensor Short Circuit
SH	Short circuit sensor
Sn, SnS	Sensors out of balance
Sn1	High Limit sensor fault
Sn2, Sn3	Temperature sensor fault
SS=0, SS=S	Multiple causes - open circuit sensor, faulty panel connection, improper voltage, etc.
ToE	Time Out Error
0.0 or 56	Open/Closed circuit faulty temperature sensor
000	Programming Error
Or ** (2.5-9)	Over Range beyond permissible temperature – Programming Error
- 01	Hi-Limit
- 02	Temp sensor fault
- 03	Flow/pressure switch open
- 04	Flow/Pressure switch closed
- 07	Hi-limit
131	Hi-limit
--	Temperature unknown - displayed at power up for 2 minutes - not a fault
----,---	Sundance/Spa Builders - 'Watchdog' - 48C reached, electronic fault, shuts system down. Major Fault
*** (3 flashing dots under temp display)	Flow/Pressure switch either Open or Closed Circuit
*** (as above, plus illuminated red LED on PCB)	High Limit Fault
Flashing Light Errors	Description
3 flashing dots	Flow Error – FLO or FLC
3 flashing dots and PCB	Same as OH

LED illuminated	
1 flash - 3 second gap	High Limit fault
2 flashes - 3 second gap	Pressure/Flow switch short circuit
3 flashes - 3 second gap	Pressure/Flow switch open circuit
4 flashes - 3 second gap	Open circuit Sensor(s)
Flash - 1 second on, 1 second off	Same as OH
Flash - briefly OFF once per second	Same as Sn1 or Sn3
Flash - briefly ON once per second	Same as FLC
Blinking Power Indicator Light - Hydromate	High Limit tripped or, sensor fault
1 flash per second - onga 4352, 53, 95, etc	Pressure switch open circuit - could also be motor, or motor thermal overload
3 flashes per second - onga 4352, 53, 95, etc	Electronic fault – element sensor (most common cause) or PCB
Green flashes - Spaquip Pulsar/2095 series	Water sensor fault - lack of water
Red/Green alternate flashes	Temperature sensor fault, open circuit, or high limit tripped - push Reset Rod

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