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Spa Touchpad Error Messages & Codes

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The messages and codes listed here are a combination of error, operational and reminders

Along-side each code is a brief description of its meaning.

Under no circumstances should you use this information to attempt a repair unless properly qualified to do so. We have provided this information as a reference, and for qualified tradesmen to utilise as required.

Spa technicians – we can provide access to **full diagnostic manuals** covering these messages & codes, via an app direct to your Android, iPhone, or Windows phone. Please 'create an account' on our website and follow instructions listed in the 'Trade Pages' category. Alternatively we can email them to you on request (This feature and access is only available to spa technicians).

Causes of the most common following spa / hot tub fault codes

Flow/Pressure switch open – dirty filters, blockages, switch failure, low water level, pump failure.

Flow/Pressure switch closed – switch failure, pump relay stuck

Hi-Limit fault – dirty filters, blockage, low flow, sensor fault, failed pump – sensor reads 45C+ / 112F+

Temperature sensor fault – sensor failed, low flow

Over heat fault – Same as sensor fault, pump not running, relay failed – sensor reads 38-45C / 100-112F

Spa touchpad messages and codes are listed for various models including the following brands:





in.xe and in.y series

If the code is a 'Slave' code, it's a fault with the slave unit – same error cause as the main unit

AOH or AO2 (swim spa slave)	Spa pack temperature too high
Prr / Pr or Pr2 (swim spa slave)	Temperature sensor failure
OH or OH2 (swim spa slave)	Over heat 43c
FLO / CFLO or FL2 (swim spa slave)	Flow error
HL or HL2 (swim spa slave)	Hi-limit 48c
Hr or Hr2 (swim spa slave)	Internal hardware error - Thermal Fuse
HR or HR2 (swim spa slave)	Internal hardware error - Stuck relay
Lxx / LLxx	Low level software setting
UPL / BL	No low level software loaded
Er1 (swim spa)	Communication between Master & Slave failure
SLA (swim spa)	Main touchpad has been connected to the slave unit
LLxx (swim spa)	Unable to select LL program – reverts to menu – faulty Slave
LLEr (swim spa)	LL program is not a swim spa config & slave unit detected
StbY	Standby mode
OFF	30 min all outputs off
Fx, FFxx	Filter cycle frequency per day
FSxx	Filter cycle start time
Fdxx, dx	Filter duration in hours
EP 0 or 1	Economy mode on/off
ESxx	Economy mode start time
Edxx	Economy mode duration in hrs
EExx	Economy mode end time
Econ	Economy mode set
rLY	Stuck relay
Comm	Verify cable connections
Supp	Connect power to 240v
HIBr / HiBr	Add fresh water
LoBr / NoBr	Add BromiCharge

in.xm

SP-br	Incorrect input current set
SP-Ot	Spa pack under spa too hot
SP-OH	Over heat – water temp 48c
SP-Hr	Internal hardware error
SP-in	Input voltage too low
SP-Fx	Fuse 1-3 blown
rH-Hr	Hardware error in in.therm heater
rH-HL	Hi-limit circuit tripped
rH-nF	No flow detected
rH-Pr	Regulation temperature sensor failed
rH-nC	Communication error - heater to pack
rH-nH	Not heating – no temp increase detected
rH-Id	No match between heater and pack models
Px-Er	No detection of Pump current draw P1-5-Er
CP-Er	No detection of current change on circ pump
bL-Er	No detection of current change on blower
Fn-Er	No detection of current change on fan
Sc-Er	System learning error
LLxx	Low level software setting
Ph- xP	Incoming power – number of phases 1-3
brxx	Input current setting
--- (after initial priming)	Possible broken or bent heater sensor pin(s)

in.xm2

rH-lid	No match between heater and pack models
Hr	Hardware error detected - thermal fuse
HR	Hardware error detected – stuck relay
HL	Hi-Limit circuit tripped 50c
OH	Overheat. Water temp at 44.5c
rH-nC	Communication error – heater to pack
Pr-r / Pr	Temperature sensor failed
AO-H	Spa pack under spa too hot
SP-in	Input voltage too low
FL-O / CFLO	No flow detected
FL-C	Flow switch closed
Fx	Fuse blown F1-3
Sc-Er	Scan error detected / system learning error
Fr-Er	Input power frequency 50/60hz out of range
Sc	System scanning – 1 st power up
bL	No firmware downloaded into system
P9	Programming firmware into system
UP-Ld	No valid low level software uploaded
UPL / BL	No valid low level software uploaded
Comm	Verify cable connections
Supp	Connect power to 240v
HiBr / HiBr	Add fresh water
LoBr / NoBr	Add BromiCharge



CoLd	Temperature approaching zero
OH	Over Heat condition
HLEr	Hi-limit over heat sensor failure
SEoP	Temperature sensor open circuit
SESH	Temperature sensor short circuit
PSoC	Pressure switch open circuit with circ pump
PSoL	Pressure switch open with low spd pump
PSoH	Pressure switch open with high speed pump
CboH	Control box over heat 115f / 46c
ToE	Time out error – system shutdown
CLDN	Cool down cycle
ECL	Energy saving cycle
CHCL	Air blower Channel clear
UTO	User time out
PUF	Post use filtration
MENU	Menu access
CANC	Cancel/discard changes
SEND	Save changes
CALB	Calibration for temp
FPx (1-4)	Filtration period
SIL	Silence period start time
FPxd (1-4)	Filter duration
SILd	Silence timer duration



Water tap icon crossed out
 Bell icon & HEAT
 Bell icon & ICE
 ICE
 Bell icon & LD F
 Bell icon & LEAK
 CLDF
 FHL
 RPH
 RSA
 RCL
 RT9
 RDR
 RCO
 RTR

Low water level detected
 Water temperature above 45c
 Water temperature below 5c
 Winter mode
 Load failure
 Faulty wiring detected
 Low flow
 Temperature difference over 5c – low flow
 Reminder – test pH
 Reminder – sanitise spa
 Reminder – clean the filter
 Reminder – test RCD safety switch
 Reminder – drain / refill
 Reminder – clean spa cover
 Reminder – treat / clean spa cabinet



Prr
 HL (flashing)
 HL (solid)
 FLO
 FLC
 OtH
 FrEEzE ProtEct (scrolling)
 dEcL
 GF
 LocP
 LocF
 tSt
 HPt
 Hd
 pH
 - - - -
 Spa light flashing

Temperature probe failure or disconnected
 Over temperature 44.5 degrees
 High Limit 48 degrees
 Flow switch open circuit
 Flow switch closed circuit
 Heater barrel rate of heating is too fast
 Water temp below 10 degrees – freeze protection mode
 Circuit breaker setting overload error
 Ground/Earth Fault
 Partial touchpad lock
 Full touchpad lock
 System testing hi-limit probe on start up
 Heater probe test failed – re-attach to heater
 Hi Limit probe disconnected
 pH error – pH above 8.2
 Damaged PCB processor
 Error code/condition present



FLC
 FLO
 Ho
 HoH
 H2O
 HPF
 rPF
 Ferr
 Fus1
 Fus2
 Fus3

Pressure / Flux Switch Closed
 Pressure / Flux switch Open
 Over Temperature 44C
 High Limit 55C
 Low water level
 Hi Limit sensor failure
 Temperature sensor failure
 System error
 Fuse 1 failure
 Fuse 2 failure
 Fuse 3 failure

M7 messages

---	or	---	Temperature not available
-- F, -- C, or --			Temperature not available – priming
BUF			Internal problem detected (Cal Spas)
CFE or CONFIG ERROR			Configuration error
CrC or CHKSUM FAIL			Firmware installation failure
dr, HEATER MAY BE DRY WILL RETEST SHORTLY			Possible inadequate water detected
drn, DRAINING			Indicating pump is on while draining
drY, dY, HEATER DRY SERVICE REQD			Inadequate water detected
Ecn, Ec			Economy mode set
gFI, GFCI FAILURE			Spa could not trip RCD
HFL, HL, HTR FLOW LOW			Substantial difference between sensors
Hot, HOT-CALL SVC			Possible pump stuck on
ICE, IC, FREEZE COND			Potential freeze condition – pumps run
LF, LOW FLOW			Persistent low flow problem
OHH, HH, HTR TEMP LMT SERVICE REQD			Overheat – spa shut down
OHS, OH, SPA TEMP LMT			Overheat – spa shut down
PHH, PH IS HIGH LOWER PH			pH is high
PHL, PH IS LOW RAISE PH			pH is low
Pr, PRIMING MODE TAKES 4 MIN			Initial priming mode active
PSt, PERSIST FAIL			Hardware failure
rt9, TEST GFCI			Reminder – test RCD
rCA, CHANGE MINERAL CARTRIDGE			Reminder – change Nature 2 cartridge
rCH, NEW FILTER			Reminder – replace filter
rCL, CLEAN FILTER			Reminder – clean filter
rCO, CLEAN COVER			Reminder – clean spa cover
rdr, DRAIN WATER			Reminder – drain & refill spa
rPH, CHECK PH			Reminder – test/adjust chemical levels
rSA, CK SANITIZER			Reminder – test/adjust sanitiser levels
rtC, RTC FAILURE			Hardware Failure
rtr, TREAT WOOD			Reminder – wood retreatment required
SAH, SANITIZER HIGH			Sanitiser level is high
SAL, SANITIZER LOW			Sanitiser level is low
SbY, STANDBY MODE			Spa is in 'standby' mode
SE, STANDARD ECONOMY			Spa is in 'Standard-Economy' mode
SF, SAFETY FAULT			Suction protection fault
SLP, SL			Spa is in 'sleep' mode
SnA, SA, SENSOR A SERVICE REQD			Sensor A not working
Snb, Sb, SENSOR B SERVICE REQD			Sensor B not working
SnS, Sn			Sensors out of balance
Std, St, STANDARD			Spa is in 'standard' mode
StU, STUCK ON			Pump appears to be stuck on

Non M7 messages (older controllers with pressure switch)

pd	Power down, on battery back up
OH	Overheat
Flo, FI	Flow problem
Cool	Spa is 11 degrees below set point
ICE, IC	Possible freeze condition
Sn1, Sn	Hi-limit fault
Sn3, Sn	Temperature sensor fault
ILOC	Interlock fault
Ec, Econ	Spa is in 'economy' mode
Std, St	Spa is in 'standard' mode
Sl, Slp	Spa is in 'sleep' mode

Flashing LED messages - Balboa

1 flash, 3 second gap
2 flashes, 3 second gap
3 flashes, 3 second gap
4 flashes, 3 second gap
Flash – 1 second on, 1 second off
Flash – briefly OFF once per second
Flash – briefly ON once per second

Hi-limit fault
Pressure switch closed (FLC)
Pressure switch open (FLO)
Temperature sensor fault
Hi-limit, OH
Sensor fault
Pressure switch fault



Onga 4352, 4353, 4395

LED 1 flash per second
LED 3 flashes per second

Pressure switch open circuit, insufficient flow
Temperature sensor or pcb fault

Director & Turbo series

LED slow green (2-3 sec interval)
LED fast green (1 sec interval)
LED slow red
LED fast red

Initial prime fail, pressure switch open cct
Pressure switch open beyond initial start
Temperature sensor failed
Hi-limit over temperature cut out

Bathmaster Series

LED red / green flashing 'Power' indicator
LED orange flashing 'Jets / Pump' indicator
LED red flashing – 3 flashes

Low or high voltage condition
Loss of prime. Pressure switch open
PCB fault



GCF
-.-.-. and RED heater light
-.-.-. and GREEN heater light
All lights flash
E01
E02
E03
E04
E05
E06
End

Not grounded/earthed correctly
Over temp condition
Water temperature detected below 4 degrees C
Something is wrong with the pump
Flow sensor closed circuit
Flow sensor open circuit
Water temperature below 4 degrees C
Water temperature over 50 degrees
Thermometer sensor fault
Power supply fault
System stops after 72 hrs operation. Press 'Unlock' 3 secs



BL-46 / BL-70 / BL-80

OH
Fr
FL / FLo
E0
E1
E2
E3
E4
E7
Fc
diS / time remaining alternating

Over temperature
Freeze condition detected 4 degrees
Pressure switch open circuit
Temperature sensor short circuit
Temperature sensor open circuit
Hi-limit sensor short circuit
Hi-limit sensor open circuit
Flow switch short circuit
Improper electrical connection
Filter cycle in operation
Disable / standby mode and time remaining

BL-45 / BL-50 / BL-60

All LED's Flashing
Orange 98 & Red 104
Red 102 & Red 104
Orange 100 & Red 104

48 degrees Overtemp
Low Flow error
Temperature Sensor fault
Hi-Limit Sensor fault



'TEMP' flashing
_____ flashing
-.-.-.- or ==:==:
_____ or == ==

Pressure switch or temperature sensor failed
Hi limit tripped
Pressure switch open circuit
Pressure switch closed circuit (jets operate)



Err

Temperature sensor fault



SPA-N-A-BOX

EN1 / OH
EN2

Sensor 1 failure
Sensor 2 failure

th1 / 39 or --- / 39	Freeze protection – temp under 39F / 4C
th2 / 39 or --- / 39	Both thermistors detecting below 39F / 4C
th2 / “current water temp” or --- / “current water temp”	Temperature sensor error
OH or HOT	Over heat 112 F / 44C
HL	Hi-limit 118 F / 47C
HL / 210	Thermistor short circuit
0	Electronic failure of touchpad or pcb
FLO or --	Flow switch open circuit
FLC or --	Flow switch



Ampac, Aquaswim, AquaPacific

Pulsar, 2095 & Intuitive Series

Red/green flashing on two LED's	Hi-limit sensor tripped, electronic fault
Green, Green, or Orange flashing LED	Insufficient water detected
Red/green flashing <u>pump</u> LED	Insufficient water detected (some models only)

Digital 2000 (stainless steel heater tube with pressure switch)

01	Stuck touchpad button
02	Touchpad Communication error
03	Temperature sensor failure mk2 sensor
04	Pressure switch closed circuit
05	Over temperature condition
06	Heater thermal cut-out overheat
07	Stuck heater relay
08	Temperature sensor failure mk1 sensor
09	Prime failed, pressure switch open circuit

Spa Power 1000 & 2000

01	Stuck touchpad button
02	Touchpad communication error
03	Temperature sensor failure
04	Optical water sensor failure
05	Over temperature condition detected
06	Heater thermal cut-out overheat
07	Stuck heater relay
09	Prime failed, insufficient water detected

Spa Power 400, 500, 600, 601, 750, 800, 1200

Error 1 (H2O or Prime Failed)	Prime failed, insufficient water detected
Error 3	Stuck touchpad button
Error 4	Optical water sensor failure
Error 5	Over temperature condition detected
Error 6	Heater thermal cut-out overheat
Error 7	Stuck heater relay
Error 8	Temperature sensor failure
Error 9 (Spa Power 800 & 1200 only)	Clock fault
Warning 1 (Spa Power 800 & 1200 only)	Temperature sensor failure (pool OR heater)
Ht.d (Spa Power 500 only)	Heating mode - Demand Heating
Ht.F (Spa Power 500 only)	Heating mode – Filtration Only Heating
Green Pump LED flashing (SP400/600/601 only)	Sleep mode active

Xcelsior Spa Pool System QX350

Error 1 (H2O/CHE)	Prime failed, insufficient or 'too pure' water
Error 3	Stuck touchpad button
Error 5	Over temperature condition detected 45c
Error 6	Pump heater thermal cut out overheat
Error 7	Stuck heater relay
Error 8	Temperature sensor failure
Error 9	Heater control circuit failure

SPSVB Variable Speed Blower

Error 2 (2 LED flashes / beep)	Communication or electronic failure
Error 3 (3 LED flashes / beep)	Stuck touchpad button



FLUID DYNAMICS

Optima Compact & Titan Optima with Tecnologic Z31SE thermostat

noF	No flow – flow switch open
E1	Temperature probe Open circuit
EPr	EEPROM memory error



KL6600 and KL8000 series

ESA	Temperature sensor error
ESb	Water flow sensor error
Eob	Water flow sensor error
EHH	Heater error over heat 48 degrees
EoH	Heater error over heat 43.5 degrees
EPL	Water flow error
ECP	Water flow error
EUH	High input voltage 280v
EUo	High input voltage 260v
Elo	Lamp current over limit
CPo	Circulation pump current over limit
LLL	Low water level
ICE	Freeze warning – below 44F / 7C
EIn	Auto moisturizing overtime
InF	System is refilling
InP	Water refilling Paused
out	Auto drainage process is running

Ethink KL8-2 and KL8-3 series

E1	Temperature sensor open / short circuit
E2	Flow sensor open circuit
EP	Low flow through Ethink heater
FF	Over temperature fault



imPower Lockout Codes (on numerous variable speed pool pumps)

None	Eeprom load failure
1 blink	Micro processor failure
2 blinks	Under voltage below 180v AC
3 blinks	Temperature – over 100C or under -20C
4 blinks	Over current tripped
5 blinks	Over voltage above 269v AC
6 blinks	Shaft seized
7 blinks	Self check – self testing failed
8 blinks	Motor fault – phase disconnected
10 blinks	Other fault



Gao Er Da - GD

HEAT
ICE
CLDF
LD F
E1, FF
Water pump or tap ICON flashing
Thermometer ICON flashing
CALB
S.C.

Hi-limit over 45c
Water temperature below 5c
Circulation pump problem / flow problem
Load Failure – faulty pump, heater, etc
Temperature sensor failure
Water level too low
Low flow
Temperature calibration mode
System wiring fault



Imperial Spas



Swift River Spas

dCP
FC
FLO
Ht
HtS
HtS-OHt
OHT
tS-0-tS
tS-255-Ht-OHt
PS1
PS2

No DC power at master relay
Freeze condition under 15 degrees C
No circ pump current draw
Over 43 degrees C
Open hi-limit sensor
Short hi-limit sensor
Overheat 48 degrees C
Open temp sensor
Short temp sensor
Pressure switch closed
Pressure switch open



Class Series

FLO
FLC
Err
Prr
HL
FrE
*** 3 flashing dots on display
*** with red LED lit on pcb
0.0 / 32F
H2O
BOO
CLE, CF
SbY
LOC
LocP / LoP

Flow / pressure switch open circuit
Flow / pressure switch closed circuit
Electronic software error
Regulation temp sensor failure
Hi-limit sensor failure
Possible freeze condition
FLO or FLC
Hi-limit sensor failure
Regulation temp sensor failure
Insufficient water level
Pump 1 boost mode
Reminder – clean filter
Spa is in 'standby' mode – 1hr shutdown
Touchpad panel keys locked
Touchpad partial lock

LocF / LoF
Fxx, Fdxx
dxx, Fdxx, Fsxx
Pxx
Exx, Edxx
Edxx, Esxx
Orxx (2.5-9)
CAL
SUS
---- F

Touchpad full lock
Filter cycle duration in hours
Filter cycle start delay in hours
Purge cycle duration in hours
Economy cycle duration in hours
Economy cycle start delay in hours
Over range beyond normal temp limit (not a fault)
Calibration error
Suspend mode – Pump 2 Button may be stuck
Dimension One Spas Communication Error



OH
FLO
ICE
SN1
SN2

Over temperature condition detected
Flow problem
Freeze condition detected
Hi-limit sensor failure
Temperature sensor failure



Tiger River Spas

'Ready' & 'Power' Logo lights flashing
'Power' blue light flashing
'Ready' green light flashing

Pressure switch open circuit
Hi limit fault
Temperature sensor fault



'Ready' icon flashing

==:==:==
====

Control sensor open or short circuit
Hi limit
Pressure switch open circuit
Pressure switch closed circuit



F0	Open circuit thermistor or 0c detected
F1	Thermostat reading 45c overheat
F2	Mechanical Hi-limit 45c
F3	Thermistor fault
F4	Flame Rollout detected
L	Heater locked out 2 minutes

Hurricane

PS	Pressure switch failure
SH	Shorted sensor
OP	Open sensor
LO	Low temp, potential freeze
HL	Hi-limit
OH	Overheat
FLO	Flow problem
ICE	Freeze condition detected
SN1	Hi-limit sensor failure
SN2	Temperature sensor failure

HYDROQUIP™

FLO	Flow / pressure switch open circuit
FLC	Flow / pressure switch closed circuit
HL, PrH	Hi-limit, OH sensor failure
Prr	Regulation temp sensor failure
FrEE	Possible freeze condition
Loc	Touchpad key lock
CL	Current time of day
Econ	Economy mode on
ECdu	Economy cycle duration
Flon	Filter cycle turn on
Fldu	Filter cycle duration in hours
*** 3 flashing dots on display	FLO, or FLC
*** with red LED on pcb	Hi-Limit
0.0 / 32F	Regulation temp sensor failure



COOL
FREEZING
ERR

Anti freezing mode – power off
Anti freezing mode – power on
Temperature sensor probe failure



E90
E91
E92
E94
E95
E96
99
END

No water flow
Low salt alarm
High salt alarm
Low temperature under 4C
Temperature too high
System error
Temperature sensor fault
After 72 hours of heating, system hibernates



OH
COOL
FLO
Hold
HOT
ICE
ICE2
PnL

Sn1
Sn3
FLO2
PluG

Over Temperature detected
Water temp is 11 degrees below set point
Flow / pressure switch open circuit
Panel buttons pressed to frequently
PCB temperature too high
Freeze protection
Freeze protection
Touchpad – pcb communication error
'Watchdog' major fault, spa de-activated
Hi-limit sensor failure
Temperature sensor failure
Shorted flow / pressure switch
Test sensor plug left plugged in after service

Joyonway



F1
F2
F3
F4
F5
F6
F8
F9

Temperature sensor open circuit
Temperature sensor closed circuit
Temperature too high
Temperature too low
Auto reset thermosthich open
Manual reset thermosthich open
Eprom memory error
System settings error

LaMotte ColorQ

Er3
Er7
SUN
Lo
Hi
bAt
bLA

Insufficient light reaching detector
Blank not properly set, dirty tube, damaged tube
Bright sunlight penetrating chamber.
Result is below measuring range
Result is above measuring range
Battery is low
Set 'Blank'



Flashing display
00

Damaged temp sensor or heat circuit failure
Memory loss – reset required



Maddox Enterprises, Inc



-40
122
HI
HI / temp display – alternating
J11
J12
PSC
PSO
Flashing 'heat' light

Temperature sensor open circuit
Temperature sensor short circuit
Hi-limit fault above 117F / 47C
Over temp above 112F / 44C
Temp sensor plugged in Jack 11 is faulty or dangling
Temp sensor plugged in Jack 12 is faulty or dangling
Pressure switch closed
Pressure switch open
Hi-limit fault on older units – reset with light or pump key



**Monarch Spas, Paramount Pool Equipment, S&P
Ultima Micro Controlled Spa Command Centre**

'Heater On' LED Flashing

Temperature sensor fault



FEF
FEF0
FEF1
FEF2
FEF3
F1
F2
F3
F4
BBF
BBF0
BBF1
BBF2
CEF
HEF0 / HFB
HEF1
HEF2
SPL / E0
SPH / E0
E1
E2
E3
E4
E3 flashing

Filter Pump system failure
Filter system short circuit
Filter system open circuit
Overcurrent / Blocked pump
Water pressure switch open circuit
Water pressure switch open circuit
Filter system open circuit
Overcurrent / Blocked pump
Filter system short circuit
Blower failure
Blower short circuit
Blower open circuit
Blower overcurrent
Communication error between panel and pcb
Heating system short circuit
Heating system open circuit
Heating system overcurrent
Temp below 0c – Freeze condition
Abnormally high temperature detected 60c
Low water pressure / level
Low water level / detect function failure
System Failure
Heater failure
Press On/Off, C/F, and Temp+ sequentially to reset



Perfect Pool Spa

EE01
EE02
EE03
EE04
EE05
EE06
EE07
EE08
EE09
EE10
EE11

Temperature sensor failure
High Limit – over 42C
Low water level
Insufficient/no water pressure
Heater fault
Circulation pump fault
Jet 1 pump fault
Jet 2 pump fault
Air blower fault
Light fault
Ozone fault



OH
SN
FL

Over heat 110F / 43C
Sensor failure
Flow switch closed



Er	Topside or control failure or temp sensor not connected
HI	Temp over 44.4C
Lo	Temp under 7.2C
FC	Filter cycle
FL	Flow error or pressure switch fail
FL (flashing)	Pressure switch closed
Fr	Freeze protection mode – very low temp detected



Jilong, Avenli

Older units

E1	Temperature sensor fault
E2	Temperature Protection Sensor Fault (HL)
E3	High Temperature Protection (OT) over 38C
E4	Low Temperature Protection under 20C
E5	No Heating – flow / thermal tripped

2014+

E1	Temperature sensor open/short circuit
E2	Temperature sensor open/short circuit
E3	Temperature exceeds 45 degrees C
E4	Temperature under 2 degrees C
E5	Temperature over 50 degrees C
E6	Pressure switch open circuit
E7	Dry Run – lack of water



Blue Lagoon Spas, Oceane Spas

E0 or E1 (depending on model)	Temperature sensor open circuit
E1 or E0 (depending on model)	Temperature sensor short circuit
Filtration pump icon flashing	Low flow – press on/off to reset



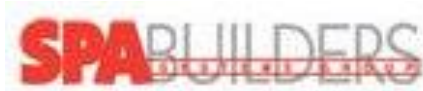
IPS or IP5
LED display flashing

Insufficient power supply voltage
Water too hot or control fault



E0
E1
P1
P2
P3
H1
B1
S1
FF

Temperature sensor short circuit
Temperature sensor open circuit
Pump 1 fault
Pump 2 fault
Pump 3 fault
Heater fault
Blower fault
Low water level
Temperature sensor not connected



LX Series

SN1 , -01, 131 , -07 , or -8
SN2 , -02
FL1, -03
FL2 , -04
COL
ICE
OH

Hi-limit sensor failure
Temperature sensor failure
Flow / pressure switch open circuit
Flow / pressure switch closed circuit
Cool condition 11 degrees below set point
Freeze condition detected
Over heat condition
'Watchdog' major fault, spa deactivates

Class Series (Gecko)

FLO
FLC
Err
Prr
HL
FrE
*** 3 flashing dots on display
*** with red LED lit on pcb
0.0 / 32F
H2O
BOO
CLE, CF
SbY
LOC
LocP / LoP

Flow / pressure switch open circuit
Flow / pressure switch closed circuit
Electronic software error
Regulation temp sensor failure
Hi-limit sensor failure
Possible freeze condition
FLO or FLC
Hi-limit sensor failure
Regulation temp sensor failure
Insufficient water level
Pump 1 boost mode
Reminder – clean filter
Spa is in 'standby' mode – 1hr shutdown
Touchpad panel keys locked
Touchpad partial lock

LocF / LoF
 Fxx, Fdxx
 dxx, Fdxx, Fsxx
 Pxx
 Exx, Edxx
 Edxx, Esxx
 Orxx (2.5-9)
 CAL
 SUS
 - - - - F

Touchpad full lock
 Filter cycle duration in hours
 Filter cycle start delay in hours
 Purge cycle duration in hours
 Economy cycle duration in hours
 Economy cycle start delay in hours
 Over range beyond normal temp limit (not a fault)
 Calibration error
 Suspend mode – Pump 2 Button may be stuck
 Dimension One Spas Communication Error



In addition to the below error codes, both XS & SV series have a 'heartbeat' LED that flashes to indicate the error condition. On, Off, On, Off is normal. 'On, On, On, Off, On, On, On, Off' indicates error 3.

XS series

ER-2	Heater sensor plug connection fault
ER-3	Water prime failed, insufficient water
ER-4	Heater thermal trip, over heat
ER-5	Over temperature. Sensor reading over 45c
ER-6	Heater temperature sensor failed
ER-7	In-pool sensor failed
ER-8	Controller software fault, stuck heater relay
99.9	Temperature sensor failed

SV Series

ER-2	Heater sensor failed
ER-3	Water prime failed, insufficient water
ER-4	Heater thermal trip, over heat
ER-5	Over temperature. Sensor reading 45c
ER-6	12v overload – too many LED lights
ER-8	Stuck heater relay
ER-10	Over current – excessive power draw
99.9	Temperature sensor failed

SV Heat Pump

HEAT PUMP AMB	Ambient thermistor sensor error
HEAT PUMP COND	Condenser thermistor sensor error
HEAT PUMP FLOW	No water flow detected
HEAT PUMP LOW P	Compressor low pressure switch open
HEAT PUMP HIGH P	Compressor high pressure switch open
HEAT PUMP COMP	Compressor thermal cut out open
HEAT PUMP EXCH	Heat exchanger thermal cut out open

Spa-Tech &



C-1 Control System – S1 & L1 Touchpads

E0	CPU is fully loaded or loose cables
E1	Heater temperature sensor fault
E2	Heat pump temperature sensor fault
E3	Environmental temperature sensor fault
E4	Water level sensor detecting insufficient water level
E5	Unmatched power input or voltage fluctuations
E6	Water pressure sensor fault – FLO error
C	Cold / freeze – water below 7 degrees C
H	Overheat – water temperature over 43 degrees C
HH	Overheat – water temperature over 45-47 degrees C

C-II Control System (used on Oasis Spas, Classic Spas and others)

E1	Temperature sensor 1 fault
E2	Temperature sensor 2 fault
E3	Heat pump temperature sensor fault
E4	Water level sensor detects insufficient water
E5	Input voltage either too high or too low
E6	Flow switch fault
E8	Heat pump compressor pressure fault
E9	Insufficient water flow
C	Low water temp below 7c
H	High temperature hi-limit 43c
HH	Overheat 47c
PL	Panel locked



HE	Temperature sensor failed
Red, Green, Yellow LED's flashing	Insufficient water detected
LEH	? possibly same as HE otherwise unknown

Sundance Spas

ILOC
FLO
FLO2
Hold
HOT
ICE
PnL / PNL
Sn1
Sn3
COOL
PLuG

LOC
PF
blb

Interlock failure
Flashing - flow switch open, solid – closed
Flow switch closed circuit
Touchpad buttons pressed too frequently
PCB temperature too high
Freeze condition detected
Panel – PCB communication error
Hi-limit sensor failure
Temperature sensor failure
water temp 11 degrees below set point
Test sensor plug left plugged in after service
'Watchdog' major failure. Spa deactivated
Panel locked
Power Failure
UV bulb/lamp replacement required



Flashing display
OP or OB
SP or SB
8888

Over heat 110F / 43C
Open probe
Short probe
Voltage spike



T5 Touchpad

oH
Fr
Flo
Er0, Er1
Er2, Er3
Fc

Over heat 48C
Freeze – temp below 4C
Flow switch open circuit
Regulation temperature sensor failure
Hi-limit sensor failure
Filter Cycle

T7 Touchpad

Fr
SOH
HOH
tS
LS
FL

Freeze – temp below 8C
Software Over heat – temp above 45C
Hardware Over heat – hi-limit above 46C
Temperature sensor error
Hi-limit sensor error
Flow switch open circuit



Models A and C

PO	Overtemp 110F / 43C
AL	Alarm mode after PO. Press up or down to reset
PSI	Water pressure too low
LO	Low temp below 65F / 18C. Warning lights lit = heater on.
Warning light	Indicates heating or economic mode



DM Industries

BJ2P	Purging notification
BLO	Air blower error. Fuse blown or defective blower
BUS	Communication error
CP	Circulation / HEET pump fault
CS	Current sensor error
F1 or F2	Fuse 1 or fuse 2 blown
FLO	Pressure switch open – low flow
HC	Heater error
HILI	Hi Limit senses above 112F / 44C
HP	High voltage observed
ICE	Water temp below 50F / 10C
LB	Light error
LP	Low voltage observed
LS	Large water sensor error
LS=O	Large water sensor open circuit
LS=S	Large water sensor short circuit
O3U	Ozonator error
P1 or P2	Pump1 or pump 2 error
Pb	Power board communication to topside error
PS	Pressure switch closed error
REL	Relay stuck
SS	Small heater sensor error
SS=O	Small heater sensor open circuit
SS=S	Small heater sensor short circuit

Portapac SSC

00
'Heat' indicator flashing
'Power' indicator flashing
SP1 or SP2

Temperature sensor fault
Over temperature sensor fault
Over temperature resettable device tripped out 45 degrees
Blower speed adjustment (do not alter – press 'Demand')

Digi-Heat Heaters

nFL
o/t
00

No flow detected, pressure switch open circuit
Over temperature Tripped 45c
Temperature sensor failed



Neo series

Plumbing error
Insufficient flow
Low flow
Water Overheat
Potential Freeze
Sensor 1 open
Sensor 1 short
Sensor 2 open
Sensor 2 short
Sensor 3 open
Sensor 3 short

Swap sensors 1 & 3 for flow direction change
No water
Lack of water flow
Overtemp 48 degrees reached
Temp too low – freeze protection enabled
sensor 1 open circuit
sensor 1 short circuit
sensor 2 open circuit
sensor 2 short circuit
sensor 3 open circuit
sensor 3 short circuit

Signature Series

CoLd
OH
HLEr
SEoP
SESH
PSoC
PSoL
PSoH
CboH
ToE
CLDN
ECL
CHCL
UTO
PUF

Temperature approaching zero
Over Heat condition
Hi-limit over heat sensor failure
Temperature sensor open circuit
Temperature sensor short circuit
Pressure switch open circuit with circ pump
Pressure switch open with low spd pump
Pressure switch open with high speed pump
Control box over heat 115f / 46c
Time out error – system shutdown
Cool down cycle
Energy saving cycle
Air blower Channel clear
User time out
Post use filtration

MENU
CANC
SEND
CALB
FPx (1-4)
SIL
FPxd (1-4)
SILd

Menu access
Cancel/discard changes
Save changes
Calibration for temp
Filtration period
Silence period start time
Filter duration
Silence timer duration

If you think our listing is incorrect, please feel free to email information for correction to sales@spaparts.com.au