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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 from the following brands:





in.xe (and in.xe swim spa) , in.ye and in.yj

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 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 / HR or Hr2 (swim spa slave)	Internal hardware error - Thermal Fuse/Stuck relay
Lxx	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-Id	No match between heater and pack models
Hr / HR	Hardware error detected / stuck relay / thermal fuse
HL	Hi-Limit circuit tripped 50c
OH	Overheat. Water temp at 44.5c
rH-nC	Communication error – heater to pack
Pr-r	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

M7 messages

--- or --	Temperature not available
-- F, -- C, or --	Temperature not available - priming
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
End

Not grounded/earthed correctly
Over temp condition
Water temperature detected below 4 degrees C
Something is wrong with the pump
System Error
No water flow
Water temperature below 4 degrees C
Water temperature too high
Pump fault
System stops after 72 hrs operation. Press 'Unlock' 3 secs



BL-46 / BL-70 / BL-80

OH	Over temperature
Fr	Freeze condition detected 4 degrees
FL / FLo	Pressure switch open circuit
E0	Temperature sensor short circuit
E1	Temperature sensor open circuit
E2	Hi-limit sensor short circuit
E3	Hi-limit sensor open circuit
E4	Flow switch short circuit
E7	Improper electrical connection
Fc	Filter cycle in operation
diS / time remaining alternating	Disable / standby mode and time remaining

BL-45 / BL-50 / BL-60

All LED's Flashing	48 degrees Overtemp
Orange 98 & Red 104	Low Flow error
Red 102 & Red 104	Temperature Sensor fault
Orange 100 & Red 104	Hi-Limit Sensor fault



'TEMP' flashing	Pressure switch or temperature sensor failed
---- flashing	Hi limit tripped
-.-.-.-	Pressure switch open circuit
----	Pressure switch closed circuit (jets operate)
----	Hi Limit tripped (spa inoperative)

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

Chinese brand - Unknown

HEAT
ICE
CLDF
E1, FF
Water pump or tap ICON flashing
Thermometer ICON flashing

Hi-limit over 45c
Water temperature below 5c
Circulation pump problem / flow problem
Temperature sensor failure
Water level too low
Low flow



th1 / 39 or - - - / 39
th2 / 39 or - - - / 39
th2 / "current water temp" or - - - / "current water temp"
OH or HOT
HL
HL / 210
0
FLO or - -
FLC or - -

Freeze protection – temp under 39F / 4C
Both thermistors detecting below 39F / 4C
Temperature sensor error
Over heat 112 F / 44C
Hi-limit 118 F / 47C
Thermistor short circuit
Electronic failure of touchpad or pcb
Flow switch open circuit
Flow switch

Pulsar, 2095 & Intuitive Series

Red/green flashing on two LED's
Green, Green, or Orange flashing LED
Red/green flashing pump LED

Hi-limit sensor tripped, electronic fault
Insufficient water detected
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

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

noF
E1
EPr

No flow – flow switch open
Temperature probe error
EEPROM memory error



ESA
ESb
Eob
EHH
EoH
EPL
ECP
EUH
EUo
Elo
CPo
LLL
ICE
Eln
InF
out

Temperature sensor error
Water flow sensor error
Water flow sensor error
Heater error over heat 48 degrees
Heater error over heat 43.5 degrees
Water flow error
Water flow error
High input voltage 280v
High input voltage 260v
Lamp current over limit
Circulation pump current over limit
Low water level
Freeze warning – below 44F / 7C
Auto moisturizing overtime
System is moisturizing
Auto drainage process is running



imPower Lockout Codes (on numerous variable speed pool pumps)

None
1 blink
2 blinks
3 blinks
4 blinks
5 blinks
6 blinks
7 blinks
8 blinks
10 blinks

Eeprom load failure
Micro processor failure
Under voltage below 180v AC
Temperature – over 100C or under -20C
Over current tripped
Over voltage above 269v AC
Shaft seized
Self check – self testing failed
Motor fault – phase disconnected
Other 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
 LocF
 Fxx, Fdxx
 dxx, Fdxx, Fsxx
 Pxx
 Exx, Edxx
 Edxx, Esxx
 Orxx (2.5-9)
 CAL
 SUS

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
 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



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



SOLANA.
Serenity made simple.

'Ready' icon flashing

:::==
====

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



F0
F1
F2
F3
F4
L

Open circuit thermistor or 0c detected
Thermostat reading 45c overheat
Mechanical Hi-limit 45c
Thermistor fault
Flame Rollout detected
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	Anti freezing mode – power off
FREEZING	Anti freezing mode – power on
ERR	Temperature sensor probe failure



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

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



HEF
FEF
BBF
SPL
SPH

Heater failure
Filter failure
Bubble failure
Temp below 0c – Freeze condition
Abnormally high temperature detected



OH
SN
FL

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



Er
HI
Lo
FC
FL
FL (flashing)
Fr

Topside or control failure or temp sensor not connected
Temp over 44.4C
Temp under 7.2C
Filter cycle
Flow error or pressure switch fail
Pressure switch closed
Freeze protection mode – very low temp detected



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



SN1	Hi-limit sensor failure
SN2	Temperature sensor failure
FL1	Flow / pressure switch open circuit
FL2	Flow / pressure switch closed circuit
COL	Cool condition 11 degrees below set point
ICE	Freeze condition detected
OH	Over heat condition
---	'Watchdog' major fault, spa deactivat



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 (used on Oasis)

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



SPA-N-A-BOX

EN1 / OH
EN2

Sensor 1 failure
Sensor 2 failure



HE
Red, Green, Yellow LED's flashing
LEH

Temperature sensor failed
Insufficient water detected
? possibly same as HE otherwise unknown

Sundance Spas

ILOC
FLO
FLO2
Hold
HOT
ICE
PnL
Sn1
Sn3
COOL
PLUG

LOC

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



Flashing display
OP or OB
SP or SB
8888

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



T5 Touchpad

oH	Over heat 48C
Fr	Freeze – temp below 4C
Flo	Flow switch open circuit
Er0, Er1	Regulation temperature sensor failure
Er2, Er3	Hi-limit sensor failure
Fc	Filter Cycle

T7 Touchpad

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



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

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