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Spa & Hot Tub Topside Touchpad Error Messages & Fault Codes

Updated 17 Dec 2019

The spa/hot tub messages and codes listed here are a combination of error or fault codes, operational and reminder messages for ALL (that we've managed to source) brands of spa equipment from around the world, from the late 1980's to Present.

It includes brands manufactured in USA, Canada, UK, Italy, Israel, Australia, and China, including inflatable spas, portable spas and in-ground spa control systems.

Many have been used on spas sold or imported into Australia, but many others have only been used in Europe or North America. There is still a very large number of unknown Chinese spa systems we are yet to identify and acquire manuals and codes for.

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 / Hot Tub technicians – we can provide access to **full diagnostic manuals** covering these messages & error codes for many of the brands listed, 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 error fault codes

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

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

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

Temperature sensor fault – sensor failed, low flow, incorrectly positioned sensor

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

Spa/Hot Tub topside touchpad messages and codes are listed by brands.



Gecko Aeware topside touchpad error codes & messages

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
LO1 FLO / LO2 FLO	Flow error
NO FLO	Persistent flow error
HL or HL2 (swim spa slave)	Hi-limit 48c
Hr / HR or Hr2 (swim spa slave)	Internal hardware error - Thermal Fuse
HR / HRA or HR2 (swim spa slave)	Internal hardware error - Stuck relay
FCL	Pressure switch closed
SPin	Input voltage too low
PoUP	Power Up
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 – communication error
Supp	Connect power to 240v
HIBr / HiBr	Add fresh water
LoBr / NoBr	Add BromiCharge
Wipe Screen Animation	Too much water on in.k1000 touchscreen
Switch/Buzzer (or other random message)	Touchpad factory test mode triggered – faulty touchpad

in.xm

SP-br	Incorrect input current set
SP-Ot	in.xm 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 (x=1, 2, or 3)	Fuse 1-3 blown
SP-OC	Overcurrent by more than 10%
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-ld	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)
Switch/Buzzer (or other random message)	Touchpad factory test mode triggered – faulty touchpad

in.xm2

rH-ld	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
LO1 FLO / LO2 FLO	Flow error
NO FLO	Persistent flow error
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
Wipe Screen (Animation)	Too much water on in.k1000 touchscreen
Switch/Buzzer (or other random message)	Touchpad factory test mode triggered – faulty touchpad



ACC topside touchpad error codes & messages

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

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



Arcadia A-tech topside touchpad error codes & messages

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



Arctic Spas topside touchpad error codes & messages

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

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

Spa light flashing

pH error – pH above 8.2
Damaged PCB processor
Error code/condition present



Astrel Moddo topside touchpad error codes & messages

FLC	Pressure / Flow Switch Closed
FLO	Pressure / Flow switch Open
Ho or HL (flashing)	Over Temperature 44C
HoH, HOH or HL (steady)	High Limit 55C (48C for HL)
H2O	Low water level
HPF	Hi Limit sensor failure
rPF or Prr	Temperature sensor failure
Ferr	System error
FULL	Compensation vat detecting water
Fus1	Fuse 1 failure
Fus2	Fuse 2 failure
Fus3	Fuse 3 failure
Er1	Wrong pump configured with heater
Er2	2 speed pump low and high reversed
Er3	Output load not detected



Australian Spa Parts

Balboa topside touchpad error codes & messages

M7 messages

--- or --	Temperature not available
-- F, -- C, or --	Temperature not available – priming
BUF	Internal problem detected
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, 1C, 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

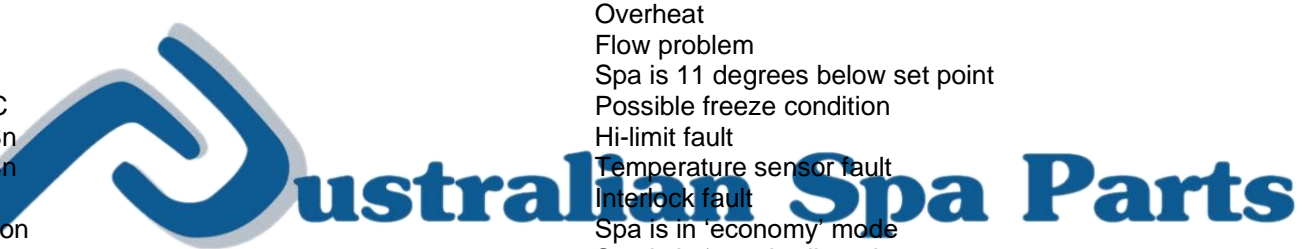
rCA, CHANGE MINERAL CARTRIDGE
 rCH, NEW FILTER
 rCL, CLEAN FILTER
 rCO, CLEAN COVER
 rdr, DRAIN WATER
 rPH, CHECK PH
 rSA, CK SANITIZER
 rC, RTC FAILURE
 rtr, TREAT WOOD
 SAH, SANITIZER HIGH
 SAL, SANITIZER LOW
 SbY, Sy, STANDBY MODE
 SE, STANDARD ECONOMY
 SF, SAFETY FAULT
 SLP, SL
 SnA, SA, SnR, SENSOR A SERVICE REQD
 Snb, Sb, SENSOR B SERVICE REQD
 SnH
 Snt
 SnS, Sn
 Std, St, STANDARD
 StU, STUCK ON

Reminder – change Nature 2 cartridge
 Reminder – replace filter
 Reminder – clean filter
 Reminder – clean spa cover
 Reminder – drain & refill spa
 Reminder – test/adjust chemical levels
 Reminder – test/adjust sanitiser levels
 Hardware Failure
 Reminder – wood retreatment required
 Sanitiser level is high
 Sanitiser level is low
 Spa is in 'standby' mode
 Spa is in 'Standard-Economy' mode
 Suction protection fault
 Spa is in 'sleep' mode
 Sensor A not working
 Sensor B not working
 High Limit sensor fault
 Temperature sensor fault
 Sensors out of balance
 Spa is in 'standard' mode
 Pump appears to be stuck on

Non M7 messages (older controllers with pressure switch)

pd
 OH
 Flo, FI
 Cool
 ICE, IC
 Sn1, Sn
 Sn3, Sn
 ILOC
 Ec, Econ
 Std, St
 Sl, Slp

Power down, on battery back up
 Overheat
 Flow problem
 Spa is 11 degrees below set point
 Possible freeze condition
 Hi-limit fault
 Temperature sensor fault
 Interlock fault
 Spa is in 'economy' mode
 Spa is in 'standard' mode
 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 (Balboa) topside touchpad error codes & messages

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

Jet LED slow Green (2-3 sec interval)
Jet LED fast Green (1 sec interval)
Jet LED slow Red 2-3 sec interval)
Jet LED fast Red (1 sec interval)

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



Bestway Lay-Z-Spa topside touchpad error codes & messages

GCF	Not grounded/earthed correctly
---. and RED heater light	Over temp condition
---. and GREEN heater light	Water temperature detected below 4 degrees C
All lights flash	Safety circuit operation – 'Test' button pressed
E01 (some models)	System error
E01	Flow sensor closed circuit
E02	Flow sensor open circuit
E03	Water temperature below 4 degrees C
E04	Water temperature over 50 degrees
E05	Thermometer sensor fault
E06	Power supply fault
E08	Manual reset thermal cut out fault
E09	104C Fuse Fault
E10	High salt level alarm
E11	Low salt level alarm
E12	Water leak inside the pump
E13	Signal line disconnected between touchpad and PCB
End	System stops after 72 hrs operation. Press 'Unlock' 3 secs



Brett Aqualine topside touchpad error codes & messages

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

Other models

PCB LED flashes 1 time every 3 seconds	High Limit condition
PCB LED flashes 2 times every 3 seconds	Pressure switch closed condition
PCB LED flashes 3 times every 3 seconds	Pressure switch open condition
PCB LED flashes 4 times every 3 seconds	Temperature sensor fault



Caldera Spas topside touchpad error codes & messages

'TEMP' flashing	Pressure switch or temperature sensor failed
---- flashing	Hi limit tripped
.... or ::::=	Pressure switch open circuit
====	Pressure switch open circuit
----	Pressure switch closed circuit (jets operate)
Orange Ready light flashing	Temperature sensor fault
Grey Power & Ready lights flashing	Low flow. Pressure switch open circuit
Grey Power light flashing	High limit fault

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Custom Molded Products - Nexus Bath Control systems

No H2O / Warning icon / pump won't operate	Insufficient water level
Too Hot	Water temperature exceeds 43.9C



Coates heater error codes & messages

Err

Temperature sensor fault



SPA₂GO

SPA-N-A-BOX

Comfort Line Products CLP topside touchpad error codes & messages

EN1 / OH
EN2

Sensor 1 failure
Sensor 2 failure



Correct-Tech CTI topside touchpad error codes & messages

th1 / 39 or --- / 39

th2 / 39 or --- / 39

th1 / "current water temp" or --- / "current water temp"

th2 / "current water temp" or --- / "current water temp"

th3 / 39

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 – connected to J2

Temperature sensor error – connected to J1

Both thermistors detecting below 39F / 4C

Over heat 112 F / 44C

Hi-limit 118 F / 47C

Thermistor short circuit

Electronic failure of touchpad or pcb – check J8

Flow switch open circuit

Flow switch



Australian Spa Parts



SPA-QUIP

Ampac, Aquaswim, AquaPacific

Davey Spa-Quip topside touchpad error codes & messages

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
02
03
04
05
06
07

Stuck touchpad button
Touchpad Communication error
Temperature sensor failure mk2 sensor
Pressure switch closed circuit
Over temperature condition
Heater thermal cut-out overheat
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
Display contrast too Light or Dark to read (SP2000)	Hold down 'Display' button and Up or Down to adjust

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

Error 1 (H2O or Prime Failed)	Prime failed, insufficient water detected
Error 2 (Spa Power 800 & 1200 only)	Variable Speed Drive fault
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
Display contrast too Light or Dark to read (SP800,1200)	Hold down 'Light' button and Up or Down to adjust

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



2017 Bay series spas - in.yt / in.k1000

HL	High Limit 48C
CFLO	No flow
FLO	No flow for over 2 hours
HR	Hardware error – thermal fuse
HRA	Hardware error – stuck relay
OH	Over heat 43C
Pr	Temperature sensor fault
AOH	Elevated controller temperature
FCL	Pressure/flow switch closed
SPin	Input voltage low
UPL	No valid software installed
Comm	Communication error
Supp	Connect to 240v
PoUP	Power Up



Eezi-Touch

Green 'Power' LED on, Blue 'Pump' LED flashing once per second
Touchpad or cable fault

Sensa-Touch

Green 'Power' LED on, Blue 'Pump' & 3 x red heater LED's flashing once per second in unison
Touchpad or cable fault

Green 'Power' LED on, Blue 'Pump' LED off & 3 x red heater LED's flashing three times per second in unison
Temperature sensor fault

Green 'Power' LED on, Blue 'Pump' LED on, low & high red heater LED's flashing twice per second in unison
Circuit board program fault. Power off 30s to attempt reset



FLUID DYNAMICS

Elecro Optima Compact & Titan Optima Tecnologic Z31SE thermostat error codes & messages

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



Ethink topside touchpad error codes & messages

KL6600 and KL8000 series except KL6200 & KL8500B

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

KL6200 series

E1	Temperature sensor fault
E2	Flow sensor fault
E3	Actual temperature is higher than set temperature
Temp Key LED flash 0.5 sec on/0.5 sec off	Water flow not detected
Temp Key LED flash 1 sec on/1 sec off	1C over set temperature reached, heater off

KL8500B series

SnA	Temperature sensor error
Snb	Water sensor error
oHb	Water sensor over limit
oHH	Heater error over heat 48 degrees
oHS	Heater error over heat 43.5 degrees
HFL	Water flow is too low
LF	Low flow
dry	Insufficient water level
ICE	Freeze warning – below 7C
InF	System is refilling

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



EvoHeat heat pump error codes & messages

Fusion, Force & DHP-R Series

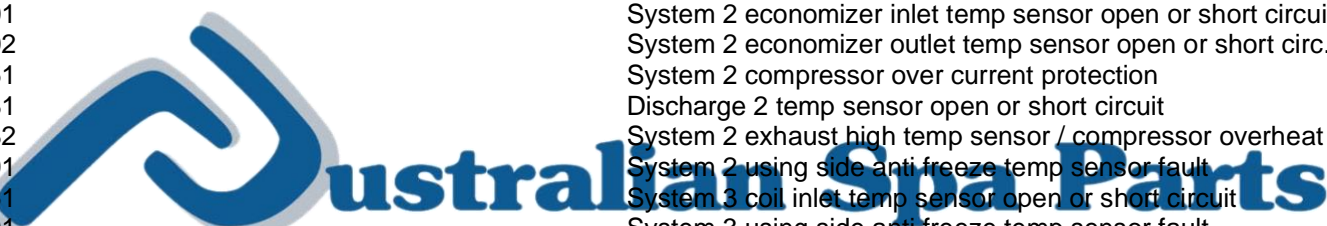
P01	Water inlet temp sensor open or short circuit
P02	Water outlet temp sensor open or short circuit
P04	Ambient temp sensor open or closed circuit
P05	Coil temperature sensor fault
P07	Suction temperature sensor fault
P08	Exhaust temperature sensor fault
E01	High pressure switch fault or Low water flow
E02	Low pressure switch fault or Loss of refrigerant
E03	Flow switch fault or Low water flow
E06	Inlet/Outlet temp differential >13C

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E07	Anti freeze protection <2C
E08	Communication error controller to PCB
E19	Primary anti freeze protection – ambient temp too low
E29	Secondary anti freeze protection – ambient temp too low

CS Series

P01	Water inlet temp sensor open or short circuit
P02	Water outlet temp sensor open or short circuit
P04	Ambient temp sensor open or short circuit
P15	System 1 coil temp sensor open or short circuit
P17	System 1 Absorb temp sensor open or short circuit
P19	System 1 anti freeze temp sensor open or short circuit
P25	System 2 coil temp sensor open or short circuit
P27	System 2 Absorb temp sensor open or short circuit
P29	System 2 anti freeze temp sensor open or short circuit
P35	System 3 coil temp sensor open or short circuit
P37	System 3 Absorb temp sensor open or short circuit
P39	System 3 anti freeze temp sensor open or short circuit
P45	System 4 coil temp sensor open or short circuit
P47	System 4 Absorb temp sensor open or closed circuit
P49	System 4 anti freeze temp sensor open or short circuit
P101	System 1 economizer inlet temp sensor open or short circuit
P102	System 1 economizer outlet temp sensor open or short circ.
P151	System 1 coil inlet temp sensor open or short circuit
P181	Discharge 1 temp sensor open or short circuit
P182	System 1 exhaust high temp protect/Compressor high amps
P191	System 1 using side anti freeze temp sensor fault
P201	System 2 economizer inlet temp sensor open or short circuit
P202	System 2 economizer outlet temp sensor open or short circ.
P251	System 2 compressor over current protection
P281	Discharge 2 temp sensor open or short circuit
P282	System 2 exhaust high temp sensor / compressor overheat
P291	System 2 using side anti freeze temp sensor fault
P351	System 3 coil inlet temp sensor open or short circuit
P391	System 3 using side anti freeze temp sensor fault
P451	System 4 coil inlet temp sensor open or short circuit
P491	System 4 using side anti freeze temp sensor fault
E03	Water flow failure
E04	Electrical heat overheat fault
E05	Protection system fault
E06	Inlet / outlet temp differential too high, low water flow
E08	Communication failure between controller and PCB
E11	High pressure 1 switch fault
E12	Low pressure 1 switch fault
E19	Primary anti freezing protection
E21	High pressure 2 switch fault
E22	Low pressure 2 switch protection
E29	Secondary anti freeze protection
E31	High pressure 3 switch fault
E32	Low pressure 3 switch fault
E41	High pressure 4 switch fault
E42	Low pressure 4 switch fault
E151	System 1 compressor current protection
E171	System 1 anti freeze temp sensor open or short circuit
E251	System 2 compressor current protection
E271	System 2 anti freeze temp sensor closed or short circuit
E371	System 3 heat source side anti freeze / low water flow
E471	System 4 heat source side anti freeze / low water flow





Fasco pump motor error codes & messages

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 topside touchpad error codes & messages

HEAT	Hi-limit over 45c
ICE	Water temperature below 5c
CLDF	Circulation pump problem / flow problem
LD F	Load Failure – faulty pump, heater, etc
E1, FF	Temperature sensor failure
Water pump or tap ICON flashing	Water level too low
Thermometer ICON flashing	Low flow
CALB	Temperature calibration mode
S.C.	System wiring fault



Imperial Spas



Swift River Spas

Gatsby topside touchpad error codes & messages

dCP	No DC power at master relay
FC	Freeze condition under 15 degrees C
FLO	No circ pump current draw
Ht	Over 43 degrees C
HtS	Open hi-limit sensor
HtS-Oht	Short hi-limit sensor
Oht	Overheat 48 degrees C
tS-0-tS	Open temp sensor
tS-255-Ht-Oht	Short temp sensor
PS1	Pressure switch closed
PS2	Pressure switch open



GECKO



Class Series

Gecko topside touchpad error codes & messages

FLO	Flow / pressure switch open circuit
FLC	Flow / pressure switch closed circuit
Err	Electronic software error
Prr	Regulation temp sensor failure
HL	Hi-limit sensor failure
FrE	Possible freeze condition
*** 3 flashing dots on display	FLO or FLC
*** with red LED lit on pcb	Hi-limit sensor failure
0.0 / 32F	Regulation temp sensor failure
H2O	Insufficient water level
BOO	Pump 1 boost mode
CLE, CF	Reminder – clean filter
SbY	Spa is in 'standby' mode – 1hr shutdown
LOC	Touchpad panel keys locked
LocP / LoP	Touchpad partial lock
LocF / LoF	Touchpad full lock
Fxx, Fdxx	Filter cycle duration in hours
dx, Fdxx, Fsxx	Filter cycle start delay in hours
Pxx	Purge cycle duration in hours
Exx, Edxx	Economy cycle duration in hours
Edxx, Esxx	Economy cycle start delay in hours
Orxx (2.5-9)	Over range beyond normal temp limit (not a fault)
CAL	Calibration error
SUS	Suspend mode – Pump 2 Button may be stuck
---- F	Dimension One Spas Communication Error



Australian Spa Parts



Hercules topside touchpad error codes & messages

OH	Over temperature condition detected
FLO	Flow problem
ICE	Freeze condition detected
SN1	Hi-limit sensor failure
SN2	Temperature sensor failure



Tiger River Spas

Hot Spring Spas & Tiger River Spas topside touchpad error codes & messages

'Ready' & 'Power' Logo lights flashing	Pressure switch open circuit
'Power' blue light flashing	Hi limit fault – spa hi limit or heater hi limit
'Power' light flashing	Spa cabinet door open / faulty magnetic door switch

'Ready' green (or red) light flashing

Temperature sensor fault



Hot Spot Spas & Solana Spas topside touchpad error codes & messages

'Ready' icon flashing

---- & power icon flashing

==:==:==

==== & power & ready icons flashing

====

----- & power & ready icon flashing

Control sensor open or short circuit

Hi limit (nothing operates)

Pressure switch open circuit

Pressure switch open circuit

Pressure switch closed circuit

Pressure switch closed circuit



Hurlcon Astral topside touchpad error codes & messages

F0

F1

F2

F3

F4

L

Open circuit thermistor or 0c detected

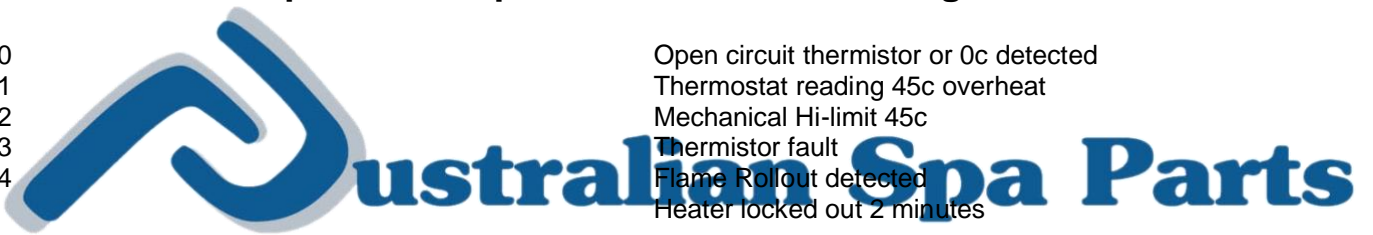
Thermostat reading 45c overheat

Mechanical Hi-limit 45c

Thermistor fault

Flame Rollout detected

Heater locked out 2 minutes



Hurricane topside touchpad error codes & messages

PS

SH

OP or OS

LO

HL

OH

FLO

ICE

SN1

SN2

Pressure switch failure

Shorted sensor

Open sensor

Low temp, potential freeze

Hi-limit

Overheat

Flow problem

Freeze condition detected

Hi-limit sensor failure

Temperature sensor failure



Hydroquip topside touchpad error codes & messages

FLO

FLC

HL, PrH

Prr

Flow / pressure switch open circuit

Flow / pressure switch closed circuit

Hi-limit, OH sensor failure

Regulation temp sensor failure

FrEE
Loc
CL
Econ
ECdu
Flon
FIdu
*** 3 flashing dots on display
*** with red LED on pcb
0.0 / 32F

Possible freeze condition
Touchpad key lock
Current time of day
Economy mode on
Economy cycle duration
Filter cycle turn on
Filter cycle duration in hours
FLO, or FLC
Hi-Limit
Regulation temp sensor failure



Infinity Megastore topside touchpad error codes & messages

HLW-15B

COOL
FREEZING
ERR
E1

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



Intex Purespa topside touchpad error codes & messages

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



Jacuzzi Hot Tubs topside touchpad error codes & messages

OH
COOL
FLO
Hold

Over Temperature detected
Water temp is 11 degrees below set point
Flow / pressure switch open circuit
Panel buttons pressed to frequently

HOT
ICE
ICE2
PnL

Sn1
Sn3
FLO2
PluG

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

Joyonway topside touchpad error codes & messages

F1	Temperature sensor open circuit
F2	Temperature sensor closed circuit
F3	Temperature too high
F4	Temperature too low
F5	Auto reset thermostwitch open
F6	Manual reset thermostwitch open
F8	Eprom memory error
F9	System settings error



OFF	Temperature below lowest set point 20C
PSI	Low/no water pressure
LO	Low water temperature detected
HI, HAUT	High water temperature detected
LOC	Lock mode – press up or down to unlock
RA	Temperature range access
P	Pool range 20-31C
S	Spa range 20-40C
---	Set point mode
SC	Temperature scale access
C	Celsius scale
F	Fahrenheit scale

LaMotte ColorQ error codes

Er3	Insufficient light reaching detector
Er7	Blank not properly set, dirty tube, damaged tube
SUN	Bright sunlight penetrating chamber.
Lo	Result is below measuring range
Hi	Result is above measuring range
bAt	Battery is low
bLA	Set 'Blank'



Len Gordon topside touchpad error codes & messages

Spa touchpads

Flashing display 00	Damaged temp sensor or heat circuit failure Memory loss – reset required
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Lenovator

NC	No communication
SP	Spa mode
PO	Pool mode
--	Data is being sent to master unit
OP	Temperature sensor open circuit
SH	Temperature sensor short circuit
OH	Overheat – water temperature over 120 F
IP	Insufficient Power
FP	Freeze point
Temperature flashing on/off	High water temp 109 F – 120 F
WAIT	Valve turning or fireman's timeout



Maddox Enterprises, Inc



Maddox LA Spas topside touchpad error codes & messages

-40	Temperature sensor open circuit
122	Temperature sensor short circuit
HI	Hi-limit fault above 117F / 47C
HI / temp display – alternating	Over temp above 112F / 44C
J11	Temp sensor plugged in Jack 11 is faulty or dangling
J12	Temp sensor plugged in Jack 12 is faulty or dangling
PSC	Pressure switch closed
PSO	Pressure switch open
Flashing 'heat' light	Hi-limit fault on older units – reset with light or pump key

Australian Spa Parts



Monarch Spas, Paramount Pool Equipment, S&P

Ultima Micro Controlled Spa Command Centre topside touchpad error codes & messages

'Heater On' LED Flashing	Temperature sensor fault
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MSpa topside touchpad error codes & messages

FEF	Filter Pump system failure
FEF0	Filter system short circuit
FEF1	Filter system open circuit
FEF2	Overcurrent / Blocked pump
FEF3	Water pressure switch open circuit
F1	Water pressure switch open circuit
F2	Filter system open circuit
F3	Overcurrent / Blocked pump
F4	Filter system short circuit
F7	*Possible pressure switch short circuit
BBF	Blower failure
BBF0	Blower short circuit
BBF1	Blower open circuit
BBF2	Blower overcurrent
CEF	Communication error between panel and pcb
HEF0 / HFB	Heating system short circuit
HEF1	Heating system open circuit
HEF2	Heating system overcurrent
SPL / E0	Temp below 0c – Freeze condition
SPH / E0	Abnormally high temperature detected 60c
E1	Low water pressure / level
E2	Low water level / detect function failure
E3	System Failure
E4	Heater failure
E3 flashing	Press On/Off, C/F, and Temp+ sequentially to reset



Australian Spa Parts



Pahlen Electric Heaters

E1	Low / No Flow
E2	Temperature sensor fault
E6	Hi-Limit thermostat open circuit
E7	Control circuit contactor, overheating limit control
E10	Pump is inactive
E12	Communication error
HC	High temperature on pcb 40C
HP / Hi	Overtemperature condition 45



Peips Spas – France

Water tap icon crossed out	Low water level
HH	Overheat 45C
H	High Limit 42C

CL	Cold – under 0C
E1	Temperature sensor or PCB failure
FL	Filter cycle active



Perfect Spa Pool topside touchpad error codes & messages

EE01	Temperature sensor failure
EE02	High Limit – over 42C
EE03	Low water level
EE04	Insufficient/no water pressure
EE05	Heater fault
EE06	Circulation pump fault
EE07	Jet 1 pump fault
EE08	Jet 2 pump fault
EE09	Air blower fault
EE10	Light fault
EE11	Ozone fault
Reset	Hold 'P' for 5 secs



Pinnacle topside touchpad error codes & messages

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

Australian Spa Parts



Presair topside touchpad error codes & messages

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 Prompt Set topside touchpad error codes & messages

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
CH6 FIL (CHG FIL)	Filter clean reminder 150 hrs. Hold 'heat' 5 sec.
BUB	Massage pump on



Australian Spa Parts

Blue Lagoon Spas, Oceane Spas

S&G Spa topside touchpad error codes & messages

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



Softub topside touchpad error codes & messages

IPS or IP5	Insufficient power supply voltage
LED display flashing	Water too hot or control fault
00	Touchpad connection fault
P01	Heat call exceeds 4 hours without increase in temperature
SP1	Special temp mode set to 40.5C or 41C



SOWO topside touchpad error codes & messages

E0	Temperature sensor short circuit
E1	Temperature sensor open circuit
P1	Pump 1 fault
P2	Pump 2 fault
P3	Pump 3 fault
H1	Heater fault
B1	Blower fault
S1	Low water level
FF	Temperature sensor not connected



Spa Builders topside touchpad error codes & messages

LX Series

SN1, -01, 131, -07, or -8	Hi-limit sensor failure
SN2, -02	Temperature sensor failure
FL1, -03	Flow / pressure switch open circuit
FL2, -04	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 deactivates

Class Series (Gecko)

FLO	Flow / pressure switch open circuit
FLC	Flow / pressure switch closed circuit
Err	Electronic software error
Prr	Regulation temp sensor failure
HL	Hi-limit sensor failure
FrE	Possible freeze condition
*** 3 flashing dots on display	FLO or FLC
*** with red LED lit on pcb	Hi-limit sensor failure
0.0 / 32F	Regulation temp sensor failure
H2O	Insufficient water level
BOO	Pump 1 boost mode
CLE, CF	Reminder – clean filter
SbY	Spa is in 'standby' mode – 1hr shutdown
LOC	Touchpad panel keys locked
LocP / LoP	Touchpad partial lock
LocF / LoF	Touchpad full lock
Fxx, Fdxx	Filter cycle duration in hours
dx, Fdxx, Fsxx	Filter cycle start delay in hours
Pxx	Purge cycle duration in hours
Exx, Edxx	Economy cycle duration in hours
Edxx, Esxx	Economy cycle start delay in hours
Orxx (2.5-9)	Over range beyond normal temp limit (not a fault)
CAL	Calibration error
SUS	Suspend mode – Pump 2 Button may be stuck
---- F	Dimension One Spas Communication Error

spaGEAR – Monarch Pool Systems topside touchpad error codes & messages

EC	Start up checks in progress
LP	Insufficient water in heater
00	Temperature sensor fault
--	Flush cycle active



Spanet topside touchpad error codes & messages

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

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
HPL (and flashing snowflake icon)	Defrost Cycle



Mode = Off
Heat = Red
Pump = Off

Hi Limit fault

Mode = Green
Heat = Off
Pump = Red

Flow/Pressure switch open

Mode = Yellow
Heat = Off
Pump = Red

Flow/Pressure switch closed

Mode = Yellow or Green
Heat = Red
Pump = Off

Temperature sensor fault



Splash Pool Accessories (S.P.A.) topside touchpad error codes & messages

HE	Temperature sensor failed
----	---------------------------

Red, Green, Yellow LED's flashing
LEH

Insufficient water detected
? possibly same as HE otherwise unknown

Sundance Spas

Sundance Spas topside touchpad error codes & messages

ILOC
FLO
FLO2 / ICE2
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



Tecmark TDI topside touchpad error codes & messages

Flashing display
OP or OB
SP, SB, SPb
8888

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



Trinity Electronic Labs touchpad error codes & messages

Apollo 11

HEATING
FILTER
OVERHEAT
FTR ONLY
NO FLOW
SENSOR FAILURE
HEATER
TEST
PROGRAM

Heater is on
Filter cycle on
Water temperature above 112 F
Heating safety component failure – filtering only
Insufficient water flow
Invalid sensor value
Heater not working
Test mode – press / hold Jets 1 to access
Program mode – press / hold Jets 1 to access



United Spas topside touchpad error codes & messages

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



Valtherm error codes & messages

Australian Spa Parts

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



Spas DM Industries

Vita Spas topside touchpad error codes & messages

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 or F3 or F4	Fuse 1, 2, 3, or 4 blown
FLO	Pressure switch open – low flow
HC or H1 or H2	Heater error
HILI	Hi Limit senses above 112F / 44C

HP	High voltage observed
HS1	Pump 1 high speed fault
HS2	Pump 2 high speed fault
ICE	Water temp below 50F / 10C
LB or LI	Light fault
LP	Low voltage observed
LS1	Pump 1 low speed fault
LS2	Pump 2 low speed fault
LS	Large water sensor error
LS=O	Large water sensor open circuit
LS=S	Large water sensor short circuit
O3U or O3	Ozonator error
P1 or P2 or P3	Pump1, 2, or 3 fault
Pb or PB or P6	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



Waterco topside touchpad error codes & messages

Portapac SSC

00	Temperature sensor fault
'Heat' indicator flashing	Over temperature sensor fault
'Power' indicator flashing	Over temperature resettable device tripped out 45 degrees
SP1 or SP2	Blower speed adjustment (do not alter – press 'Demand')

Digi-Heat Heaters

nFL	No flow detected, pressure switch open circuit
o/t	Over temperature Tripped 45c
00	Temperature sensor failed



Waterway Plastics topside touchpad error codes & messages

Neo series

Plumbing error	Swap sensors 1 & 3 for flow direction change
Insufficient flow	No water
Low flow	Lack of water flow
Water Overheat	Overtemp 48 degrees reached
Heater Overheat	Overtemp within heater
Potential Freeze	Temp too low – freeze protection enabled
Sensor 1 open	sensor 1 open circuit
Sensor 1 short	sensor 1 short circuit

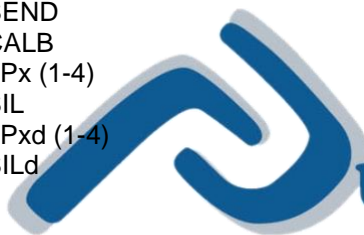
Sensor 2 open
Sensor 2 short
Sensor 3 open
Sensor 3 short

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



Australian Spa Parts



Zeng ZNG Spa Controls

ER2
ER3
ER4
ER5
ER6
ER7
ER8
FLO
HL
FCL
LOC
3 blinks on display
3 horizontal lines on display

Sensor A short circuit or water temp over 80 degrees
Sensor A open circuit or water temp below 10 degrees
Heater safety sensor short circuit or over 80 degrees
Heater safety sensor open circuit or below 10 degrees
Short Jumper/Bridge to determine fault
Open Jumper/Bridge to determine fault
Flow switch closed when there is no water flow
Flow switch open when there is water flow
Hi Limit water temp over 44 degrees
Filter clean reminder message – clean filters
Full touchpad lock
Partial touchpad lock – can operate pumps, blower, light
General / Technician's lock

If you have additional codes and messages for inclusion, or think our listing is incorrect, please feel free to email information to sales@spaparts.com.au so that we may correct / update accordingly.

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