user manual

iTouch 4.3

spanet
SPA CONTROLS

Table of Contents

SAFETY WARNINGS FOR SPA PACK

- ALL ELECTRICAL CONNECTIONS MUST BE PERFORMED BY A LICENSED ELECTRICIAN AND MUST CONFORM TO ALL NATIONAL, STATE AND LOCAL ELECTRICAL CODES IN EFFECT AT THE TIME OF INSTALLATION**.**

- **The appliance must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA.**

- The appliance must be connected to a suitable rated and weather protected power supply. The supply line should be a dedicated power circuit and means for disconnection must be incorporated in the fixed wiring in accordance with your local wiring regulations. Means for disconnection from the supply mains should have a contact separation in all poles that provide full disconnection under over voltage Category III conditions. The installer should consider the sum total load of all devices connected to the SV Series spa controller when determining the size of the power circuit and install an appropriately sized circuit breaker to suit. Ensure circuit breaker is rated for motor start up currents.

- Earthed appliances must be permanently connected to fixed wiring (European models only).

- The appliance contains no serviceable parts. Do not attempt service of this control pack. Contact your dealer or authorised service agent for assistance.

- Turn the mains power OFF before servicing appliance or modifying any cable connection.

- Suitable for indoor use only or when installed under a weatherproof spa skirt. The appliance should be installed in an enclosure such that all electrical connections cannot be accessible to the user without the use of a tool.

- Low voltage or improper wiring may cause damage to this appliance. Read and follow all wiring instructions when connecting to power supply.

- If the supply cord is damaged it must be replaced by the manufacturer, its service agent, licensed electrician or similarly qualified persons in order to avoid a hazard.

- To prevent electric shock hazard and/or water damage to this appliance, all unused receptacles must have a water proof seal in place.

- Parts incorporating electrical components must be located or fixed so that they cannot fall into the bath or spa.

- Parts containing live parts, except parts supplied with safety extra-low voltage not exceeding 12V must be inaccessible to a person in the bath or spa.

- This appliance must NOT be installed in proximity to highly flammable materials.

- Water temperature in excess of 38°C may cause hyperthermia (heat stress).

- It is the spa manufacturer's and/or installer's responsibility to select suitable loads and configure load shed settings (if required) to ensure the system does not exceed its rated maximum total load.

- It is the installer's responsibility to ensure the floor can support the expected load of the bath or spa and an adequate drainage system has to be provided to deal with overflow water.

- A whirlpool spa should incorporate a water filtration system where the required level of water purity can be achieved.

- An adequate drainage system must be provided if the equipment is to be installed in a pit.

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

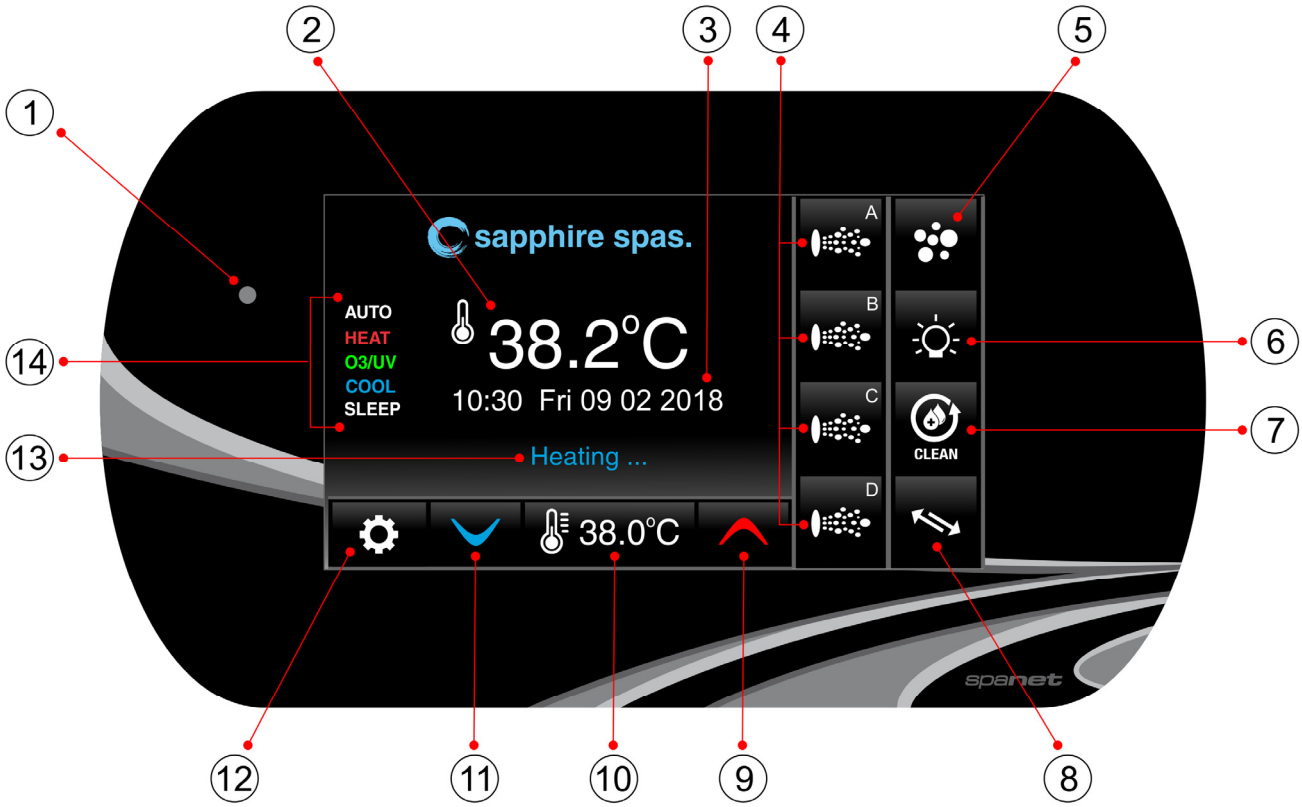
- Children should be supervised to ensure that they do not play with the appliance.

INTRODUCTION

Congratulations on your purchase of a Sapphire spa fitted with the 4.3" iTouch touch panel keypad. Your iTouch features a colour LCD with resistive touch screen. A resistive touch screen has been utilised for its non-reflective surface (offering superior viewing in direct sunlight and resistance to fingerprints), and its ability to continue to function correctly with wet fingers and pools of water on the screen.

Resistive touch screens work on the basis of pressure applied to the screen. So unlike capacitive touch screens (used in mobile phones), a resistive touch screen is less sensitive and will require a slightly firmer and more definite press. However, the optimal viewing in sunlight and ability to operate with no error when water covers the screen, make the resistive touch panel the superior choice in a spa pool environment.

TOUCH PANEL LAYOUT



1. Light Sensor

2. Water Temperature

3. Time, Day and Date

4. Pump Buttons (A, B, C, D)

5. Air Blower Button

6. Light Button

7. Clean/Sanitise Cycle

8. Invert/Flip Screen

9. Increase Set Temperature

10. Set Temperature

11. Decrease Set Temperature

12. Settings

13. Current Activity Scroll

14. Status Indicators

Status Indicators

The touch panel accessory button icons (i.e. Pumps, Blower, Light) light up green to indicate if the accessory is ON. In addition, the panel displays status indicators on the left-hand side of the screen.

AUTO

The AUTO indicator is displayed when the filtration pump is in automatic mode. In automatic mode the filtration pump will turn on / off as required to satisfy heating and filtration requirements. If the filtration pump is manually turned on or off the AUTO indicator is not displayed. The control will automatically return to AUTO mode after a 45-minute idle timeout period if not returned to AUTO mode by the spa user.

HEAT

The HEAT indicator is displayed when the spa is heating. The heater or heat pump(if fitted) is automatically controlled, it will turn ON and OFF as required (in conjunction with the filtration pump) to maintain the set water temperature. If the filtration pump is manually turned OFF the heater will NOT operate. ***NOTE:*** *In some configurations, engaging high speed on a 2-speed pump or operating multiple pumps may cause the heater to load shed and turn OFF to keep the system within its rated power supply.*

O3/UV

The O3/UV indicator is displayed when the spa sanitiser is active. The sanitiser runs in conjunction with the filtration pump except if buttons have been pressed on the touch panel (sanitiser is temporarily disabled).

COOL

The COOL indicator is displayed if a heat pump is fitted and the spa is operating the heat pump for cooling.

SLEEP

The SLEEP indicator is displayed when the spa control is within a designated sleep cycle (if set). During a sleep cycle, all automatic system operation will stop – i.e. filtration and heating will not occur.

MIX

The MIX indicator is displayed if the filtration pump is performing a mixing cycle to circulate the water and resample temperature before heating or cooling begins. A mix cycle may engage if the filter pump has been idle for an extended period. *The mix cycle can be bypassed by toggling the filtration pump ON/OFF/AUTO.*

Current Activity Scroll

The iTouch scrolls information about the current activity being carried out by the spa control. Examples include: Heating, Cooling, Filtering, Mixing, Sanitise Cycle …

Light Sensor / Automatic Brightness

The iTouch is equipped with a light sensor to automatically adjust the brightness of the LCD. The brightness will increase in daylight or lit areas and decrease in the dark to provide an optimum viewing experience. If desired, automatic brightness adjustment can be turned off and set to Manual within the settings. The light sensor can also be used to trigger a touch panel calibration sequence if required.

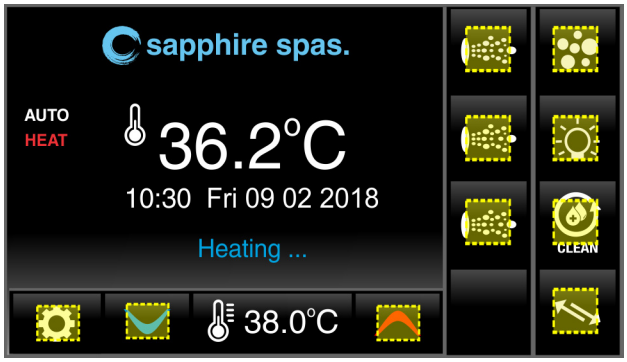
Auto-Dim Screen

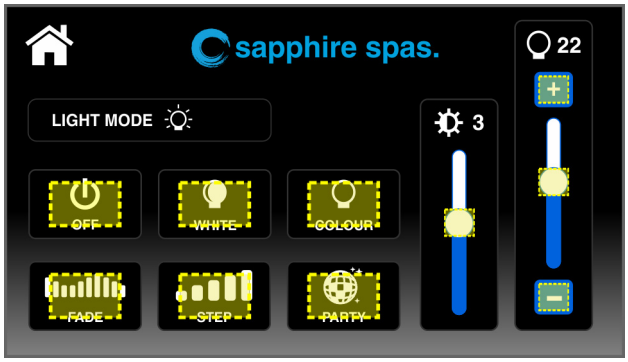
Like a mobile phone the iTouch screen will automatically dim (to protect the screen) after 60 seconds of the touch panel not being pressed. **If the iTouch has entered dim mode, the screen must be pressed once to wake it up before the buttons will operate**. **NOTE:** Once the display has dimmed (from inactivity) if you attempt to press a button you will need to press it twice. First press to wake up the display, second press to engage the button. Once the display is awake buttons will work with a single press.

The iTouch features a resistive touch screen. Resistive touch screens work based on pressure applied to the screen, so avoid light and fast touches. Instead touch the screen with a slightly firmer and longer press.

Button Hot Spots

Certain parts of the screen are information content only, other parts are buttons. Each button has a hot spot area which if touched activates. When operating the iTouch press on the centre of the hot spot area to ensure the button press is detected. Smaller buttons have a smaller hot spot area so require a more careful and accurate touch. Examples of button hot spot areas are highlighted in yellow in the pictures below:





Sliders

Some iTouch screens feature slider bars to adjust certain functions (i.e. variable speed pump, blower and light adjustments). To move the slider, press and hold your finger on the white centre button for a moment, and then slide along the bar without lifting your finger. Alternatively, you can press on the part of the slider you want the adjustment to jump to.

AUTOMATIC HEATING / FILTRATION

The SV Series spa controls have been designed with simplicity in mind. Their intelligent software constantly monitors the spa water, automatically controlling the heater and filtration pump to ensure the desired set water temperature is maintained and required level of daily filtration achieved. With set-and-forget technology, the spa user simply selects their desired water temperature (10°C - 41°C), (Default=38°C) and thereafter the spa control will automatically heat to and maintain that selected water temperature. This is called demand heating - the filtration pump and heater will be activated when required to maintain the set water temperature. The time spent heating the pool and running the filtration pump under normal operation will be considered and where required the pump will run for additional periods every few hours to maintain the minimum level of daily filtration as set by the user.

Dependant on the amount of normal spa use, set water temperature, minimum hours of filtration per day, climatic conditions and season being experienced, the spa control will engage the heater and / or filtration pump for differing periods of time, at differing times of day. The advanced software constantly monitors and recalculates after each heating / filtration cycle to ensure the correct daily filtration time is achieved and desired set water temperature is maintained. Unless adjusted the SV controller will automatically heat to and maintain the default temperature of 38°C. The set point can be adjusted in steps of 0.2°C increments.

Adjusting Set Temperature

- Press the  button to increase the set temperature point
- Press the  button to increase the set temperature point

NOTES:

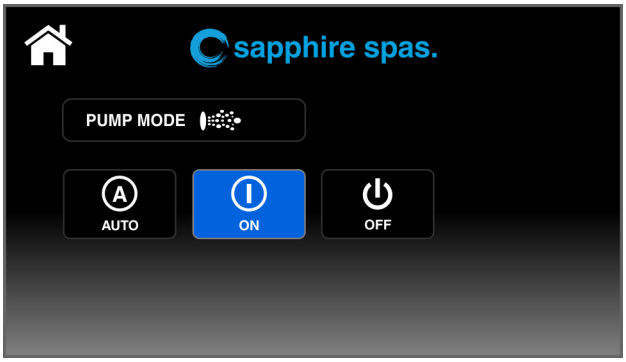
1. *During a heating cycle the SV control may raise the water temperature up to 0.5°C above the set temperature point to provide an average water temperature of set point at most times.*
2. *If an optional heat pump is **NOT fitted** the spa controller has **NO** ability to cool the spa water. Lowering the set temperature will NOT begin cooling the water. Water will naturally dissipate heat over time.*
3. *If an optional heat pump **IS fitted** the spa water **CAN** be cooled as well as heated, if H.PMP mode is set to AUTO instead of HEAT(default) within the settings. If H.PMP=AUTO lowering the set temperature point will engage a cooling cycle (when required) to maintain the desired set water temperature.*
4. *If the spa control has been in standby mode (idle) for some time and the set temperature point is adjusted, the filtration/circulation pump may run for up to ten (10) minutes to complete a mixing cycle before the heater / heat pump engages to heat or cool (heat pump only) the water. **NOTE:** To skip this mixing cycle and begin heating/(cooling) immediately cycle the filtration pump ON/OFF/AUTO.*

PUMP OPERATION

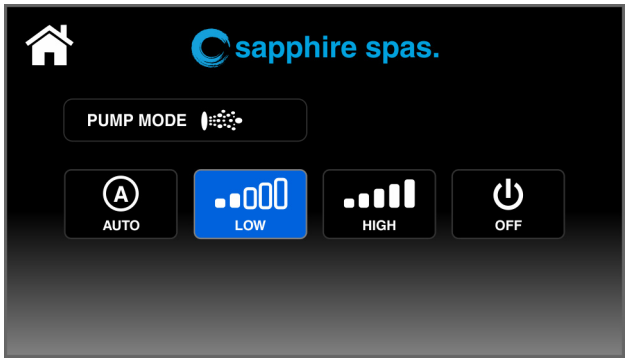
The filtration pump will automatically switch on and off as required to perform filtration and heating functions. All pump(s) will also operate for a short period during the daily sanitise cycle to purge the pipes. In addition, the pumps can be manually controlled via the pump buttons on the right-hand side of the touch panel. The functions of the pump buttons change depending on pump configuration, however the Pump-A button is mostly used to control the filtration pump. If a pump has multiple modes/speeds, a separate pump page will open when the button is pressed. However, if a pump is a single speed, the button icon will simply turn green when the pump is turned on. Possible pump screens are illustrated on the following page.

Pump A Button (multi-mode screens)

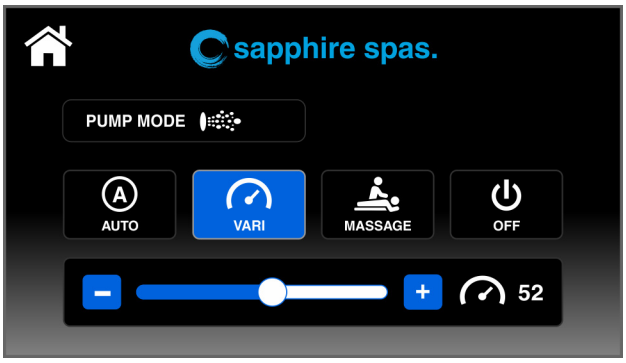
Dependent on type of filtration pump fitted the Pump-A button will present one of the following screens. Press the home icon to return to main display. Screen will timeout after 30 seconds of inactivity.



Circ or 1-speed Pump



2-speed Pump

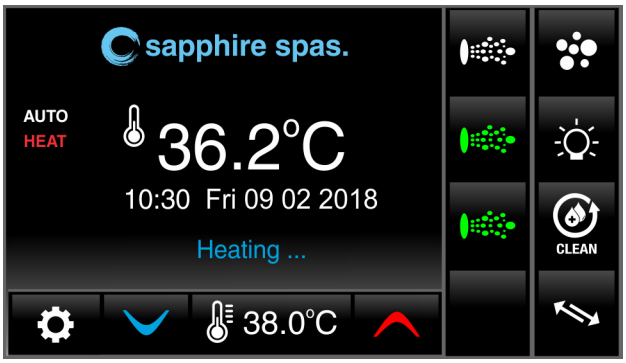


V80 Pump - Variable Speed Mode
Use – or + or slider bar to adjust pump speed

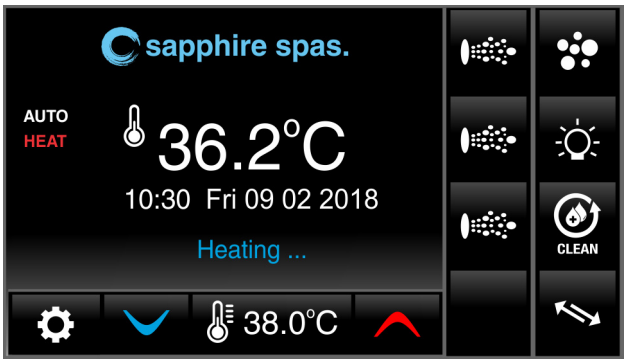
V80 Pump – Massage Mode
Select desired massage sequence

1-Speed Pump Buttons

Press the pump button once to turn pump on and press again to turn pump off.



Pumps ON (button icon green)



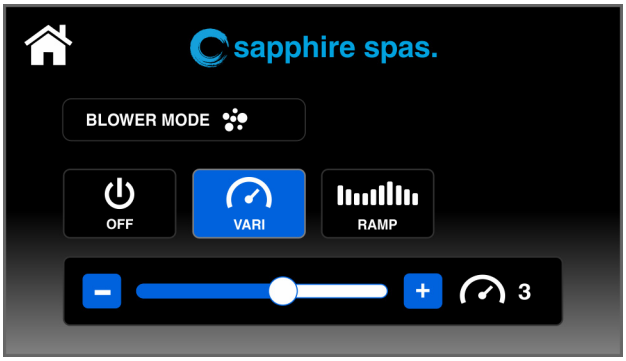
Pumps OFF (button icon white)

NOTES:

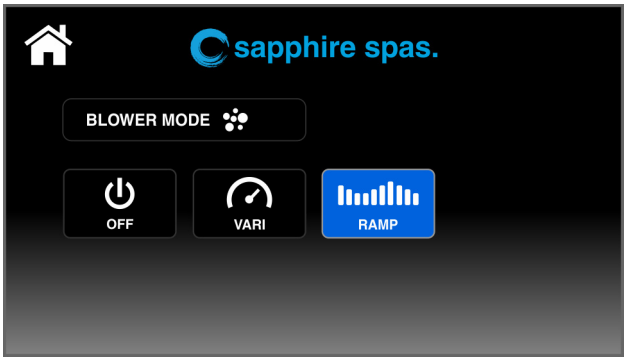
1. *If left ON, pumps automatically turn OFF after 30-minutes of touch screen inactivity.*
2. *If filtration pump is operating and the heater is ON and pump is to be switched OFF, the pump will turn off after a 5 second delay – to allow the heater to cool down before pump turns off.*
3. *In some configurations, engaging high speed (2-speed pumps) or operating multiple pumps may cause the heater output size to reduce or load shed and turn OFF, to keep the system within its available power supply.*

BLOWER OPERATION

Not all spas are fitted with an air blower. If your spa has one fitted, the blower button is used to select the desired operating mode and allow adjustment of the blower speed. The selected speed is saved and will be restored the next time the blower is turned on, for future on/off use. Two modes of operation are provided:



Variable Speed Mode
Use – or + or slider bar to adjust blower speed



Ramping Mode
Select for ramping speed mode

Press the home icon to return to main display. Screen will also timeout after 30 seconds of inactivity and return to home display. The blower button icon will light up green on the home display if blower is ON.

NOTES:

1. *When blower is first turned ON it will always run at maximum speed for 3-4 seconds before changing to a lower speed, if a lower speed was selected the last time the blower was used.*
2. *If left ON, blower will automatically turn OFF after 30-minutes of touch screen inactivity.*

LIGHT OPERATION

Multi-colour LED lighting effects

The light button is used to toggle the spa light(s) ON / OFF and to access the light mode adjustments. The features that can be adjusted are the light colour, light effect mode, light effect transition speed, and light brightness. All light settings are saved and will be restored the next time that particular light mode is turned ON, for future ON / OFF use. Possible light modes are:

White Mode
Light brightness adjustment only

User Colour Mode
Select from 30 possible colours (RH slider)
Light brightness adjustment (LH slider)

Fade Effect
Fade transition through all possible colours
Light effect transition speed (RH slider)
Light brightness adjustment (LH slider)

Step Effect
Step transition through all possible colours
Light effect transition speed (RH slider)
Light brightness adjustment (LH slider)

Party Effect
Dsico flashing transition through all colours
Light effect transition speed (RH slider)
Light brightness adjustment (LH slider)

Press the home icon to return to main display or screen will timeout after 30 seconds of inactivity and return to home display. The light button icon will light up green on the home display if light is ON.

NOTE:

1. *If left ON, light will automatically turn OFF after 45-minutes of touch screen inactivity.*

SANITISE (CLEAN) CYCLE

The sanitise button activates a twenty (20) minute clean cycle that runs the filtration pump and ozone/uv (if fitted) to filter the pool water to restore and refresh water quality. With circ pump systems jet pump1 will also run for the full 20-minute cycle. Where 2-speed filtration pumps are used the pump will run in high speed for the duration of the cycle. In addition, at the start and end of the cycle, the controller will sequentially run any additional pumps (pump2, pump3, pump4 if fitted) and the blower for one minute each to purge the plumbing and clear any unfiltered water trapped in those lines.

Activate sanitise cycle

- Press the 

button to activate sanitise (clean) cycle

- Press the 

button again to cancel the cycle (if desired)

NOTE:

At the end of the clean cycle there is a brief delay before the pumps switch off. This is normal, certain software maintenance tasks are being carried out during this time.

AUTO DAILY SANITISE

The controller will automatically run a 10 minute sanitise cycle every day at a default time of 9:00am. The automatic sanitise cycle works in the same manner as a manual sanitise excepting that the cycle only runs for 10 minutes. This feature cannot be disabled; however, the start time may be changed via the Settings menu item W.CLN.

NOTES:

1. *If the controller is in a programmed sleep period at the auto sanitise start time, the controller will wait until the sleep period ends before the daily sanitise cycle runs.*
2. *If the touch panel has been pressed prior to the auto daily sanitise cycle operating, the spa will have been deemed to be used and the cycle will be cancelled for the day.*

INVERT DISPLAY

The orientation of the touch pad display can be inverted (flipped 180°) for easier operation in and out of the spa pool.

- Press the  button to invert touch panel display

SETTINGS MENU

The iTouch features a settings menu which allows customisation of adjustable software settings. These settings do not need to be modified often and in most cases the default settings are all that is required, however if the spa owner wishes to customise any settings it is completed through the settings menu.

- Press the  button to enter the settings menu
- Press the  button to scroll up through the settings menu
- Press the  button to scroll down through the settings menu
- Press the  button to exit

Refer table below for complete list of settings menu items:

Settings Menu List

ITEM	SETTING	NOTES
CALT	Recalibrate touch screen	**NOTE:** Incorrect calibration may render your iTouch unusable! DO NOT use unless instructed by your spa reseller or technician
LOCK	Screen lock options	PARTIAL – Disable access to system settings only FULL – Disable all touch screen functions
BRT	Screen brightness	Set to Auto or Manual (default=auto)
TIME	Set time	Time is set in 24-hour time format
DATE	Set date	Select day of week and date (dd-mmm-yyyy)
MODE	Operation mode	Select from Normal / Away / Week (default=normal)
FILT	Daily filtration runtime	Adjustable from 1 to 24 hours (default: circ=4hr, others=2hr)
FCYC	Filtration cycle frequency	FILT runtime divided into cycles every 1/2/3/4/6/8/12 or 24 hrs (default=3)
SNZ.1	Sleep Timer #1	Set Begin Time, End Time and Days on which to operate (default: begin=22:00, end=7:00, days=all)
SNZ.2	Sleep Timer #2	Set Begin Time, End Time, Days on which to operate (default: begin=22:00, end=7:00, days=all)
WCLN	Auto sanitise cycle time	Set start time for automatic daily sanitise cycle (default=9:00)
PSAV	Peak tariff power save	Set Begin Time, End Time and Level (off/low/high) (default=off)
TOUT	Manual use timeout period	Length of time before Pumps/Blower switch off (default=30min) *NOTE: Lights turn off 15 minutes after TOUT period*
WIFI	Wifi menu	Execute Hot / Infrastructure / Reset WiFi commands
H.PMP	Heat pump mode	Heat & Cool / Heat only / Cool only / Disabled (default=heat)
H.ELE	Heat pump with element	Disabled=heat pump only / Enabled=heat pump + electric heater (default=disabled)
LANG	Set Language	EN=English, FR=French, DE=German, NL=Dutch, ES=Spanish (default=EN)

EPRM	Factory data reset	Restore factory default settings
INFO	System information	Summary of system diagnostic information ***NOTE:*** *Info screen will not timeout – must be exited manually*
ADV	Advanced Menu	Restricted advanced menu for OEM configuration settings ***NOTE:*** *DO NOT access unless instructed by your spa reseller or technician - the pin will only be provided at that time*

Adjusting settings

- Press on the desired menu item line to enter setting adjustment
- Press the + , – or <> buttons to adjust settings
- If setting is adjusted, you must press the SAVE button to confirm and save the new setting
- Press the button to exit

NOTES:

1. *The setup menu settings are stored in non-volatile memory (EEPROM) and are remembered when the mains power is turned OFF. No need to reprogram settings when power is restored.*
2. *A thirty (30) second idle menu time out period exists. If a button press is not detected for 30 seconds the menu will timeout and the screen will return to the home display.*

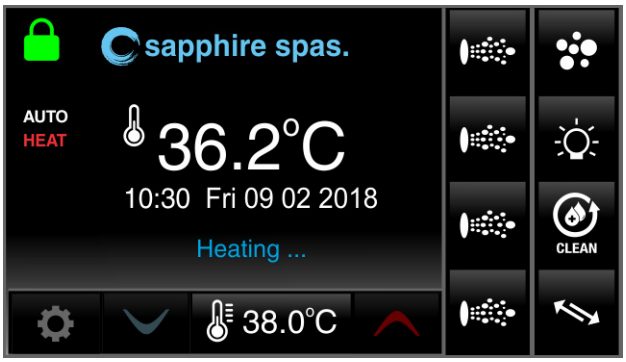
CALT – Recalibrate touch screen

Used to redefine the X and Y axis mapping for touch panel operation. **NOTE: Incorrect calibration may render your iTouch unusable.** DO NOT execute calibration setting unless instructed to by your spa reseller or technician. Further detail on the calibration process can be found at the end of this user manual.

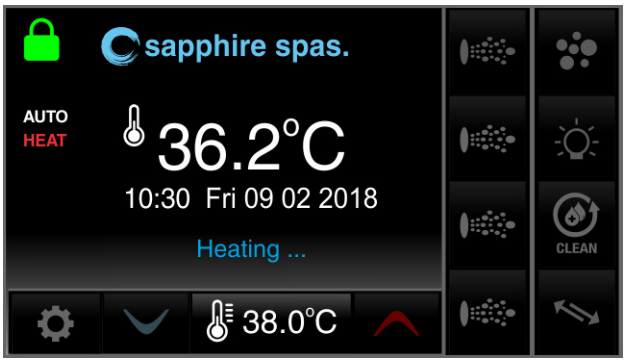
LOCK – Screen Lock Options

The iTouch buttons can be locked to prevent accidental key presses or to limit access to certain controller functions. There are two lock settings:

Partial Lock Allows use of pumps, blower and light but locks out temperature and settings adjustments
Full Lock Disable all touch screen functions

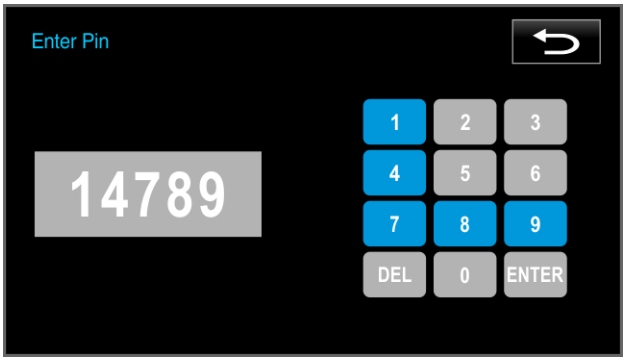


PART – Partial Lock (accessory use only)



FULL – Full Lock (all functions disabled)

Unlocking Locked Screen



To unlock a locked iTouch you press on a locked button and the Enter Pin screen will appear (refer below).

Press the unlock pin sequence 1,4,7,8,9 (L-shaped pattern) and then press the ENTER button.

BRT – Screen Brightness

Used to select between AUTO or MANUAL brightness. Use the + or – buttons to toggle between AUTO and MANUAL. In auto mode the screen brightness will be automatically increase in bright light conditions and decrease in dim/dark light conditions. In manual mode you select the desired percentage of light brightness and the screen will always remain fixed at that brightness level (Default=AUTO).

TIME – Set Time

Use the + or – buttons to adjust hours and minutes. NOTE: Time is set in 24-hour time format

DATE – Set Date

Use the + or – buttons select weekday, day, month, year

MODE – Operation Mode

The iTouch features three different operation modes that affect demand heating and filtration behaviour:

NORM Normal demand heating and filtration => set temp maintained, daily filtration runtime achieved.

AWAY Heating disabled, filtration reduced to 1hr per day

WEEK Monday – Thursday = AWAY mode, Friday – Sunday = NORM mode

(Default=NORM)

FILT – Daily Filtration Runtime

Automatic filtration is provided to ensure that the pool water is filtered for at least a minimum number of hours each day. Total daily runtime can be adjusted from 1-24 hours. Larger pools require higher amounts of filtration. (Default: circ pump=4 hours, 1spd/2spd/V80=2 hours).

FCYC – Filtration Cycle Frequency

Filtration does not run in a single block. Daily filtration runtime (FILT) is divided into smaller cycles which occur over the course of the day. The F.CYC setting defines the hours between each filtration cycle. Users can choose either 1/2/3/4/6/8/12 or 24 hours. Best economy is achieved when F.CYC=3 (Default=3hrs)

SNZ.1 – Sleep Timer #1

The sleep timer is a very handy feature that enables the user to stop all spa activity and silence the spa during certain times of day or night. While the controller is sleeping NO automatic heating or filtration maintenance will occur, however the spa can still be operated by manual use without the need to adjust sleep time settings. The sleep timer setup consists of defining the begin time, end time and day(s) of operation. Sleep timer settings are referenced in the table below:

TITLE	SETTING	OPTIONS
Begin	Time sleep period begins	Adjustable to any time 0:00 to 23:59 (Default=22:00 PM)
End	Time sleep period ends	Adjustable to any time 0:00 to 23:59 (Default=07:00 AM)
Days	Selected days of operation	All week (7 days), Mon-Fri (weekdays), Mon-Thu, Weekend (Sat-Sun), Mon, Tue, Wed, Thu, Fri, Sat, Sun, Disabled (Default=All week)

NOTES:

1. *iTouch is pre-set with a default sleep timer – begin 22:00(10PM), end 07:00(7AM), 7 days a week.*
2. *If spa in use at begin time of sleep period, spa will not sleep until 45-minute inactivity timeout period has elapsed.*

SNZ.2 – Sleep Timer #2

Operates the same as sleep timer #1. A second sleep timer is provided to allow greater flexibility when programming sleep timers in case users wish to program different sleep settings for weekdays vs weekends. (Default=DISABLED).

WCLN – Automatic Sanitise Cycle Time

Define start time for automatic daily sanitise cycle. NOTE: Set in 24-hour time format (Default=9:00).

PSAV – Peak Tariff Power Save

Power utilities in some regions offer household power meters that can track power usage during different times of the day. This allows the utilities to offer greatly reduced power pricing during off peak periods. The Power Save (PSAV) function allows the user to program in the peak power period so the spa control knows not to perform filtration (low) or filtration & heating (high) during those peak tariff periods. Instead the controller will take advantage of the competitively priced off peak hours. The power save timer setup consists of defining the begin & end time of the peak tariff period, and level of operation (low/high/off). Power save settings are referenced in the table below:

TITLE	SETTING	OPTIONS
Begin	Begin time of peak tariffs	Adjustable to any time 0:00 to 23:59 (Default=14:00 PM)
End	End time of peak tariffs	Adjustable to any time 0:00 to 23:59 (Default=20:00 PM)
Level	Level of operation	OFF – Disabled (default) LOW – Off peak filtration only HIGH – Off peak filtration and heating

NOTES:

1. *Default=Disabled*
2. *You cannot define PSAV days of operation. PSAV operates the same every day of the week.*
3. *If a user configures PSAV, sleep timers should be considered and adjusted or disabled to prevent the spa sleeping all night and power saving all day, in which case the spa would never heat or filter.*

TOUT – Manual use timeout period

All accessory loads (i.e. jet pumps and/or air blower) automatically turn off after a time out period has elapsed. Fifteen (15) minutes later the lights switch off and the spa will return to automatic mode. This setting allows the length of the time-out period to be adjusted. The TOUT setting ranges from: 10 to 60 minutes (Default=30 mins).

WIFI – WiFi Setup

This menu is only of use if the optional SpaNET SmartLINK or SmartSTREAM WiFi module has been installed and connected to the SV Series controller. This menu has three commands that can be executed. Use the UP or DOWN buttons to select desired command and press the OK button to execute – display will show WAIT whilst the WiFi module carries out the command.

HOT Puts WiFi module in hot spot mode for initial app setup. **NOTE:** Once initial app setup has been completed if the HOT command is executed again, all WiFi settings will be lost, and the app setup process must be run again.

INFR Forces WiFi module to disconnect/reconnect from the SpaNET app server to refresh connection if spa is not automatically coming online once the app setup process has been completed.

RSET Deletes programmed settings from WiFi module and returns the module to its factory default state. **NOTE:** If this command is executed settings are lost and the app setup process must be run again.

HPMP – Heat Pump Mode

This setting is only relevant if a SV Series heat pump is connected and defines heat pump operating mode. The available operating modes are as follows: (Default=HEAT ONLY)

HEAT + COOL Heat pump will heat and cool
HEAT ONLY Heat pump will only heat
COOL ONLY Heat pump will only cool
DISABLED Heat pump disabled

HELE – Heat Pump With Electric Element

This setting is only visible if a SV Series heat pump is connected and defines how the SV Series electric heating element operates with a heat pump. By default, this setting is set to OFF which disables the electric heater using only the heat pump for heating. Set to ON to allow the electric element to run in conjunction with the heat pump to boost heating speed if the water temperature is 2ºC or more below set temperature point or the heat pump has been operating for more than 1 hour and set point has not been achieved. The H.ELE setting choices are: (Default=OFF)

OFF SV element disabled (heat pump only)
ON SV element + Heat Pump for heating

LANG – Set Language

The iTouch supports multiple languages: EN=English, FR=French, DE=German, NL=Dutch, ES=Spanish (Default=EN)

EPRM – Factory Data Reset

Execute this command to reset software values to factory default settings

INFO – System Information Summary

This screen displays a list of diagnostic information about the SV Series spa controller. **NOTE:** This is the only settings screen which will NOT automatically time-out and revert to the home display. You must press the Exit arrow to escape this screen.

ADV– Advanced Menu (OEM configuration)

This menu is used to access advanced OEM configuration settings which should NOT be adjusted by the spa owner unless instructed by your spa reseller or service technician. A pin number restricts access to this menu to prevent accidental changes bv the spa owner.

SET DATE/TIME BEFORE USING THE SPA

Vital control functions require the date & time to be set correctly. Be sure to accurately set the date and time before operating the spa.

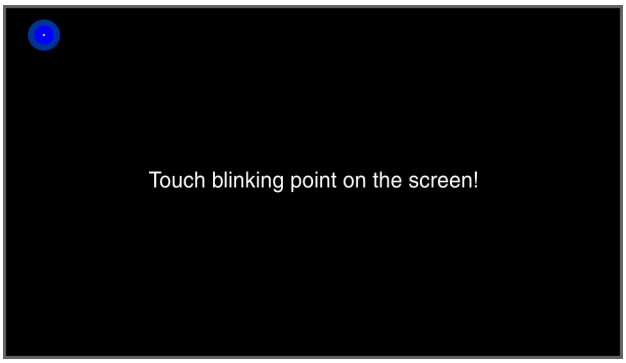
WATER CHEMISTRY MAINTENANCE

It is your responsibility to regularly check and maintain the chemical water balance of the spa pool to ensure it remains within reasonable pH (acid/alkaline) limits => (7.4 - 7.6 pH). Unbalanced water chemistry greatly accelerates corrosion and may lead to early product or component failure. **Product or component failures caused as a result of poor water chemistry maintenance are not covered by the product warranty.** We recommend you carry out a daily water chemistry test to correctly maintain the pH balance within reasonable limits.

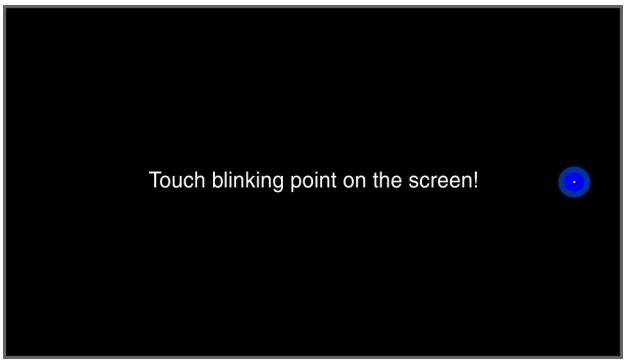
SCREEN CALIBRATION

Screen calibration defines the X & Y axis mapping of the touch panel and affects how the touch panel responds to touches. Your iTouch is calibrated during production and should NOT be re-calibrated unless instructed by your spa reseller. **NOTE: Incorrect calibration may render your iTouch unusable.**

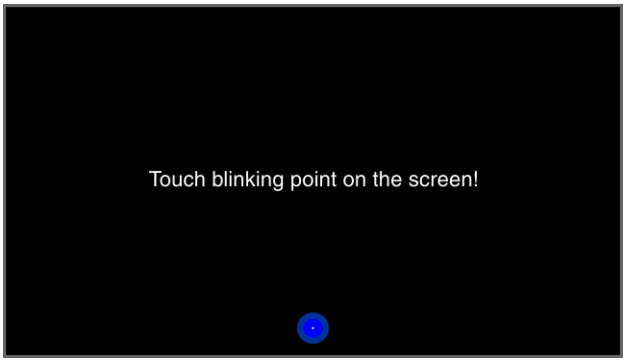
The calibration process presents 6 x pulsing calibration points which must be carefully pressed one at a time to correctly map the X & Y axis points. **NOTE: Calibration should be performed with a stylus pen or ball point pen and NOT with the finger-tip.** It is very important the user presses as close to the centre of the flashing dot as possible for accurate calibration and is why the tip of a stylus or pen should always be used for the calibration process. A finger tip has too much surface area, will lead to inaccurate calibration resulting in a touch panel that is unresponsive and difficult to operate. In comparison the tip of a stylus will lead to an accurate calibration point and therefore will provide the best touch response and user experiencing when operating the iTouch.



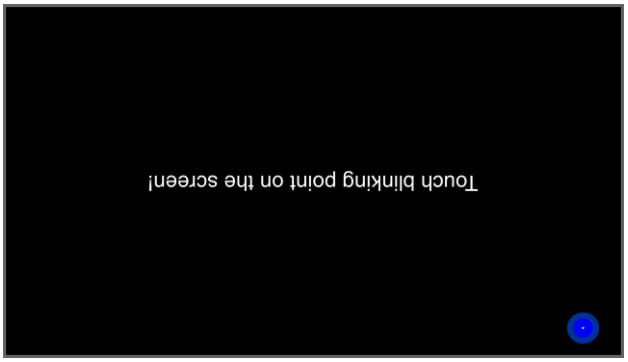
Point 1 – Calibrate normal orientation



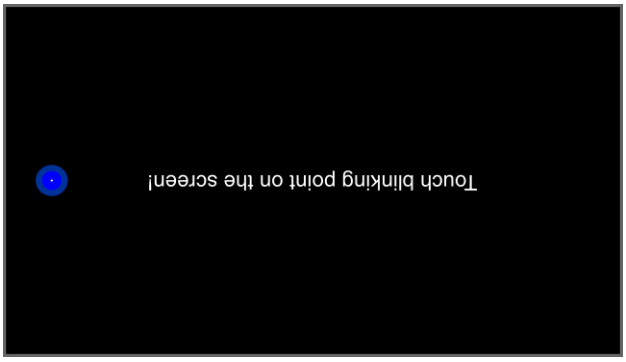
Point 2 – Calibrate normal orientation



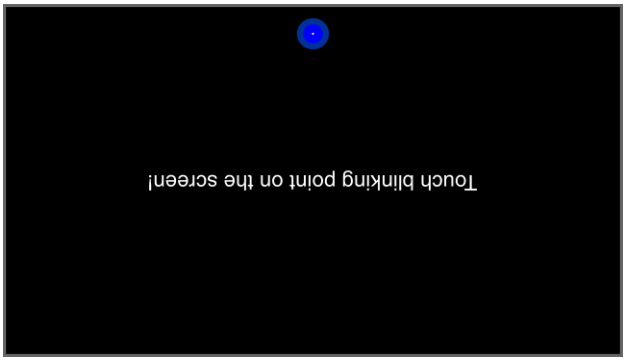
Point 3 – Calibrate normal orientation



Point 4 – Calibrate inverted orientation



Point 5 – Calibrate inverted orientation



Point 6 – Calibration Complete

HEATING CONTROL & PROTECTION

Fast Heat Cycle / Freeze and Overheat Protection

Fast Heat Cycle

After initial mains power on the SV Series controller will perform a fast heat up cycle that enables continuous demand heating which ignores any sleep or power save timers. Once the set temperature has been reached the fast heat up cycle is cancelled, normal operation resumes and any sleep or power save timer(s) is obeyed. The purpose of a fast heat up cycle is to help the spa reach set temperature as soon as possible after it has been powered up. For new spas or spas refilled with cold water it is desirable not to have sleep time delaying the time to takes for the spa to reach set temperature point.

NOTES:

1. *A fast heat up cycle is cancelled by manually forcing the filtration pump to OFF via the keypad.*
2. *For new spas or when a spa has just been refilled it is common for spa users to test the operation of each pump when the power is first turned on. This process will cancel the fast heat up cycle. After completing testing of the spa functions remember to reset mains power if you wish to reactivate fast heat up cycle.*

Freeze Protection

Freeze protection will be activated whenever the water temperature drops below 4ºC. It runs back to back 10-minute sanitise cycles and displays "WARM" on the screen. It also runs each spa accessory (i.e. jet pumps and air blower) in sequence to run water through the pipe work whilst running the filtration pump and heater. During the "WARM" cycle the heater and heat pump (if fitted) will operate however heater load shedding may occur when accessory pumps are running depending on control and load shed settings. At the end of each 10 minute "WARM" cycle the water temperature is checked. If it is above 4ºC freeze protection stops and the controller returns to its prior state. If the temp is not above 4ºC another cycle will run.

Note: *Freeze protection overrides any sleep or power save timer– if the water temperature drops below 4°C and the controller is in a sleep period it will wake up. So even if high amounts of sleep time and a low set temperature point have been programmed, the SV Series controller will maintain the water temp above 4°C.*

Defrost Cycle (heat pump models only)

During periods of low ambient temperatures defrost cycles may be required to prevent the heat pump's condenser from freezing. Ambient and condenser temperatures are constantly monitored and defrost cycles will be automatically activated if certain conditions are met. Defrost cycles run for a minimum of 3 minutes to a maximum of 10 minutes.

Overheat Protection

All SV controllers feature three forms of overheat protection:

1. If sensed water temperature within the heater unit exceeds safe working limits the heating element will be disabled and the controller will shut down and latch fault code (ER4 - Thermal Trip). Normal operation will not resume until heater element has cooled and mains power is reset
2. If sensed water temperature exceeds 42°C filtration is stopped until the temperature falls below 42°C to prevent heat rise from filtration pump operation
3. If sensed water temperature exceeds 45°C the controller will shut down and latch fault code (Er5 - Pool too hot). Normal operation will not resume until mains power is reset

ERROR CODES / TROUBLESHOOTING

SV spa controllers feature self-diagnostics and scrolling error messages to quickly troubleshoot possible problems. Should the spa control encounter a problem the error code / message will scroll across the topside panel screen until the problem is resolved. If an error condition is experienced all spa functions are shut down and the spa should not be used until the error condition has been resolved. A list of error codes with descriptions of problems and possible solutions is detailed below for your reference.

IMPORTANT NOTE

For most error codes mains power to the spa control must be turned OFF and then back ON before the error condition will be cleared. Before attempting any troubleshooting always ensure mains power is isolated and turned OFF.

Heartbeat LED

All SV Mini spa packs feature a red flashing heartbeat LED light. The heartbeat LED is located on the main printed circuit board of the spa pack itself (spa pack enclosure cover needs to be removed).

The heartbeat LED flashes to indicate the current health/status of the spa pack. When the spa pack is functioning correctly with no errors to report the heartbeat LED emits a single flash in a constant pulse much like a heartbeat (ON, OFF, ON, OFF). If the spa pack encounters a fault the heartbeat LED will begin flashing in sequence with the error code number being experienced (ie. ER2 = ON,ON; OFF ON,ON; OFF).

If the keypad display is ever blank a spa user can still determine the health / status of the SV Mini controller by removing a panel from the spa skirt and checking the heartbeat LED on the front of the spa pack itself.

ER-2 HEATER PLUG

Problem: No heater sensor communication

Cause: Heater sensor communication problem. Sensor cable is not correctly connected to spa control or is damaged

Solutions: Turn mains power OFF, remove spa cabinet panel and SV Mini enclosure cover
Check heater sensor cable is firmly plugged into spa control socket labelled HEATER
Unplug and re-plug heater sensor cable to re-establish connection to spa control
Check for damage to sensor lead, replace covers and test spa again
Contact spa reseller if problem is not resolved

ER-3 WATER PRIME

Problem: Water prime failed – air detected in heater tube

Cause: Airlock in pipe work, low water level, dirty filter cartridges

Solutions: Press Pump A button to retry water prime
Check spa water level (refill if necessary)
Remove filter cartridges and press Pump A button to retry prime
Bleed airlock from pipe work by slightly loosening couplings on front of filtration pump
Remove filter cartridges and flush water down pipe work with a hose

ER-4 THERMAL TRIP

Problem: Heater thermal trip activated. Heater has been active and has had insufficient water flow over the element. Low or no water flow has caused the heater temperature to exceed its maximum limits and the spa control has shut down operation to prevent any damage to the heater unit

ER-4 THERMAL TRIP

Cause: Low water level, airlock in pipe work, closed shut-off valves, dirty filter cartridges, filtration pump failed or operation intermittent

Solutions: Turn mains power OFF and wait 20-30 minutes for element to cool and thermal cut-out device to reset. Then turn power back ON
Check spa water level (refill if necessary)
Remove filters and clean as per manufacturer's recommendations or replace cartridges if required
Check under spa cabinet to ensure all shut-off valves are in the OPEN position
Bleed airlock from pipe work by slightly loosening couplings on front of filtration pump or by removing filters and flushing water down pipe work with a hose.
Contact your spa reseller if problem persists

ER-5 POOL TOO HOT

Problem: Pool over temperature. Temperature sensor reading ≥ 45°C

Cause: High ambient temperatures (especially in summer months) have caused water temperature to rise above set temp point, Excessive filtration time, Jet pumps have been operating for extended periods with the spa cover still on

Solutions: Turn mains power OFF, remove spa cover, allow spa to cool then turn power back ON
Check daily filtration time (refer filtration section) and reduce daily filtration time if required
Check spa cover is not resting on topside panel buttons causing jet pumps to start when cover is on. Use keylock function to lock keypad buttons when spa not in use.
Contact your spa reseller if problem persists

ER-6 12V OVERLOAD

Problem: 12V (port) current draw over 1A limit

Cause: Total 12V current drawn by keypad(s), light(s), expansion ports and in pool temp sensor is excessive, 12V power supply is overloaded, too many LED light bulbs installed, faulty LED light

Solutions: Turn mains power OFF and restart spa to see if problem reoccurs
Perform EPRM software reset to factory defaults
Reduce number of LED lights connected to spa control
Systematically unplug lights, keypads and expansion port loads from spa pack (one by one) to identify the faulty 12v device
Contact your spa reseller if problem persists

ER-8 CTRL FAULT HVS

Problem: Heater relay is on when it should be off

Cause: Power surge, periods of low or high voltage, water on spa pack terminal block, relay fault

Solutions: Turn mains power OFF and back ON again to see if spa control recovers from ER8 fault
Inspect under spa cabinet for evidence of water leaking onto spa control. If water present, turn mains power OFF and isolate, then resolve leak, dry up excess water, and allow spa control to dry out before restoring power.
Contact your spa reseller if problem persists

Contact Us

Spa Net Pty Ltd

Unit 4
103 Railway Road North
Mulgrave NSW 2756
Australia

Phone: +61 2 4587 7766
Fax: +61 2 4587 8766

www.spanet.com.au

Technical Support & Service service@spanet.com.au

Accounts Department accounts@spanet.com.au

Sales Department sales@spanet.com.au