

**spanet**

# X-S-SERIES

INTELLIGENT SPA CONTROLS



better featured  
simple to use  
built to last



ThermoCool Aluminium Enclosures

Teflon Coated Incoloy Elements

Optical Water Sensing

Large Easy to Read LCD Screens

Advanced PowerSAVE Software

Automatic Daily Purge Cycle

One-Touch Sanitisation Cycle

Adjustable Filtration

Programmable Sleep Times

Self Diagnostics



EN 60335.1 EN 60335.2.60

AS/NZS 60335.1 AS/NZS 60335.2.60

## CONTROLLER FEATURES

### ThermoCool Anodised Aluminium Enclosures

For cooler operating, more reliable, longer lasting electronic components. The enclosure dissipates heat and is completely sealed to IPx4. There are no air vents to protect against water or insect ingress. The attractive anodised case with impact resistant end caps is built to survive the elements.

### Low Voltage Ancillaries Water Ingress Protection

All low voltage, small signal ancillaries connect directly to the controller via external sockets. Custom seals ensure IPx4 water ingress resistance is maintained. All cables are shielded for EMC performance and immunity.

### AMP Power Outlets

External IPx4 AMP sockets allow easy fitment of cords and minimises cord set costs for plug in ancillaries. All mains voltage loads connect via 4 way AMP plugs and sockets, greatly easing cordset management.

### Easy Access DIP Switches

Easily accessible dip switches allow simple configuration of the controller without the need to open the control enclosure. A removable bung on the low voltage end cap facilitates access to the dip switch bank. Load shedding and pump configuration selection is performed via these dip switches. All other controller settings are configured via easy to navigate menus in the user topside panels.

### Real Time Clock Power Backup

A dedicated power back up system is included for the real time clock ensuring that the current time of day is kept even in times of power outages or when the power is turned off.

### Non Volatile Memory

All controller settings (ie filtration, sleep times, power save etc) are stored in non volatile memory (EEPROM) so they are remembered in times of power outages or when the power is turned off. No re-programming of settings required when power is restored.



### ComfortSET Air Control

SpaNET controllers have the ability to turn a single speed blower into a variable speed. All the required hardware is included in the controller. This ComfortSET air system allows the user to manually adjust the air massage to their desired level of comfort. With complete control from the topside panel the user can adjust from a vigorous massage right down to a slow bubbling spa, or enjoy a mix of both in ramping mode. The choice is yours at the touch of a button.



### Temperature Sensing

The heater includes a highly accurate and stable digital temperature sensor for reliable temperature control. For unrivalled safety two electromechanical thermal cut out devices are utilised.

### Flexible Mount Heater

The remote heater allows flexibility over where it is mounted under the spa and its orientation, greatly easing plumbing and space constraints. It can be mounted horizontally or vertically. It is simple to service or upgrade without having to remove the controller. Being separate to the controller has the additional benefit of allowing fewer models of controller to be stocked for different kW spa models.

## HEATER FEATURES

### Corrosion Resistant Heater

The element boss and incoloy element are thickly coated with Teflon™. This resists corrosion damage by water chemicals ensuring a dramatically longer service life. The element is housed in a heavy duty Noryl plastic heater tube eliminating element failures common with metal heater tubes. The result is a compact and robust long life heating unit.

### Optical Water Sensing

NO PRESSURE SWITCH. Eliminates the common problems associated with pressure or flow switches. No adjustments are required for different pump configurations and water flow rates. No problems with start up surges and no adjustments needed as filters wear.

## TOPSIDE PANEL FEATURES

A stylish, easy to mount topside panel series offering:

- Large back lit easy to read LCD display with a wide viewing angle
- Simple On/Off operation of all ancillaries
- Ancillary keys illuminate when the ancillary is on for easy indication
- Multiple display modes and menus
- Soft touch keys with positive tactile feedback
- Variable colour and brightness back lighting to match pool lighting\*
- 'One Touch Clean' key to activate a comprehensive 20 minute sanitisation cycle to clean up the spa water at a time when most needed
- 'ComfortSET Air' key for easy control of variable speed blower functions
- Inbuilt Digital Clock to check time of day whilst spa in use
- Digital Timer (user settable 1-20mins) that sounds an alarm when expired\*
- Multiple 'sleep' times to suit any lifestyle
- 'Invert' key to flip the LCD data for easy reading in and out of the spa\*
- Key lock function to lock the key pad to prevent unwanted use
- Set temperature adjustments at the press of a key
- 4 dedicated LEDs for indication of Auto mode, heating, ozone/uv operation and sleep mode
- Separate user and OEM menus for spa setup and customisation

\* Model Dependant Features



### OneTOUCH Sanitisation Cycle

Upon exiting the spa one press of the dedicated topside panel key activates a 20 minute water sanitising cycle that immediately engages the ozone/uv and filtration pump and operates all pumps and the blower in sequence to purge plumbing lines at the start and end of the cycle.

### Automatic Load Timeouts

All ancillaries automatically turn off in a timed sequence from the last topside panel key press. Pumps and blowers turn off after 30mins, lights at 45mins and then the spa returns back to automatic mode.

### Automatic Daily Purge

A 10 minute daily automatic water sanitising cycle that operates all pumps and the blower in sequence to purge plumbing lines while filtering. The time of day this feature activates can be adjusted via a topside panel user menu.

### Adjustable Filtration

Adjustable filtration periods. Enables accuracy when setting appropriate minimum daily filtration considering the spa size, filtration pump size, environment and use. Circ pump setups adjustable from 1-24 hrs, 1 spd / 2 spd pump setups from 1-8 hrs. Filtration is performed on an hourly basis taking into account sleep times, heating and manual pump operation. Filtration disabled above 43°C.

### Adjustable Ozone

The spa can be set to either "Ozone OFF" while spa is in use or "Ozone ON" (degas vessel fitted) while spa is in use via the topside panel OEM menu. This feature when set to "ON" lends itself well to UV sanitiser operation.

### Programmable Sleep Times

Included are two sleep timers that are easily adjusted via the topside panel user menu. Sleep timers disable automatic heating and filtration during the desired sleep period. Using two timers the user can set different sleep periods for different days of the week, i.e week days and weekend.

### PowerSAVE Function (P.SAV)

A feature to truly lower spa running costs by reducing energy usage during peak power priced periods, by limiting filtration only (low) or both filtration and heating (high) to occur outside peak power periods. Peak power start and end times and power saving level are all easily adjusted via the topside panel user menu. PowerSAVE levels are adjustable (off, low and high) to tailor the feature to the customer's requirements.

### Load Shedding & Load Limit

Load limit and load shedding allow the spa's current usage to be tailored to the available power supply.

**Load Shed:** A dip switch selectable setting that defines the number of loads (pumps & blower) that can operate simultaneously with the heater. Once the load shed setting is exceeded the heater is forced off to lower the spa's current usage.

**Load Limit:** An OEM menu selectable option to set the number of loads (pumps & blower) that can be operated at the same time. Once the limit is reached a load must be switched off before another can be switched on to prevent the spa exceeding the available current.

### Temperature Accuracy and Control

All temperature measurements are made using solid state digital temperature sensors providing +/- 0.5°C absolute temperature accuracy. These sensors have higher accuracy, there is no drift with time, no calibration is required and they do not suffer from common thermistor problems. Adjustable temperature control hysteresis caters for different spa feature levels:

- In heater temperature sensor = 2°C
- In pool temperature sensor = 0.5°C

### Self Water Priming

At start up the controller operates the filtration pump for 10 seconds. If water has not been detected in the heater a water prime warning is displayed on the topside panel. A simple press of the pump A key on the topside panel starts a re-prime attempt.

### Freeze Protection

Automatically activates a comprehensive warming cycle including the multiple purging off all plumbing lines when the water temperature reaches 4°C.

### Over Temperature Protection

Comprehensive over temperature protection incorporates both software monitoring and fail safe electromechanical thermal cut outs to provide superior temperature management.

### Two Speed Pump Operation

All 2 speed pumps start in high speed for 5 seconds before swapping to low speed to ensure maximum motor starting torque preventing stalled pumps.

### Selectable °C / °F Units

OEM menu allows selection between °C and °F units.

### Showroom Demonstration Mode

A handy showroom feature allowing demonstration of the spa controller without the need to fill the spa with water. Heater, pumps and blower do not activate but are simulated on the topside panel.

### EEPROM Reset

A handy feature to restore all of the controller's factory default settings via the topside panel OEM menu.

### Self Diagnostics

Extensive self diagnostics enable easy fault finding. Error codes and descriptive text are scrolled across the topside panel for easy identification of faults. In addition fault codes are flashed on the controller's heart beat LED. To make diagnostics even easier the controller will scroll important configuration information across the topside panel LCD after a key press combination.

## OPTIONAL ACCESSORIES



### In Pool Temperature Sensor

A solid state digital temperature sensor providing +/- 0.5°C absolute temperature accuracy with 0.01°C resolution. Insulated and sealed to provide years of trouble free operation. No calibration is required as the spa controller automatically detects the presence of the in pool sensor. Improves temperature regulation and accuracy as temperature is measured from the pool not the pipework and the hysteresis from set temperature point is lowered from 2°C to 0.5°C.

### Colourshadz Advanced Lighting

Advanced Colourshadz lighting software provides the user complete flexibility over choice of colour mixing mode, effect transition speed and brightness adjustment. A single dedicated topside panel key switches the light on/off in the last mode of operation. Additionally an easy to navigate menu allows selection of five different colour modes to provide complete lighting control. Light modes include:

- **White:** fixed white light
- **User colour:** manual selection from 30 possible colours
- **Step:** step change between colours
- **Fade:** smooth fade between colours
- **Party:** automatic disco light pattern

In addition there are five light effect speed & brightness adjustments to truly enable lighting control perfection. Once mode, speed and brightness are selected they are remembered for future on/off use. Only compatible with approved SpaNET LED lights and border lighting systems.

**Note:** Please consult your SpaNET sales representative for information on compatible lighting





**XS-2000**

**XS-3000**

**XS-4000**

**FEATURES LIST**

**CONTROLLER**

Circulation Pump	Adjustable (1-24 hrs)	Adjustable (1-24 hrs)	Adjustable (1-24 hrs)
Pump 1	1 spd / 2 spd	1 spd / 2 spd	1 spd / 2 spd
Pump 2	1 spd*	1 spd	1 spd / 2 spd
Pump 3	-	1 spd*	1 spd*
Pump 4	-	-	1 spd#
Air Blower	Vari Spd / Ramping	Vari Spd / Ramping	Vari Spd / Ramping
Ozone / UV Sanitiser Outlet	Yes	Yes	Yes

**HEATER**

Flexible Mount Remote Heater	Yes	Yes	Yes
Optical Water Sensing	Yes	Yes	Yes
In-heater Temperature Sensor	Yes	Yes	Yes
In-pool Temperature Sensor	Optional	Optional	Optional
Heater Sizes	2.0 kW	3.0 kW	4.5 kW

**POWER**

Voltage	230 ~ 240V	230 ~ 240V	230 ~ 240V
Hertz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Amperage	10A / 15A	15A / 25A / 32A	32A / 40A / 45A

**LIGHTING**

ColourSHADZ LED Lighting Support	Yes	Yes	Yes
Light Effect Modes	4	5	5
Light Colours	20	30	30
Light Brightness Adjustment	Yes	Yes	Yes
Light Settings Memory	Yes	Yes	Yes

**TOPSIDE PANELS**

Topside Panel Support	2	2	2
Topside Backlight Sync with Lights	-	Yes	Yes
Inverted (180°) LCD Display Mode	-	Yes	Yes
One-Touch Sanitisation Cycle	Yes	Yes	Yes
Adjustable Display Modes	Yes	Yes	Yes
Keylock Function	Yes	Yes	Yes

**SOFTWARE FEATURES**

Adjustable Load Shedding & Load Limits	Yes	Yes	Yes
Automatic Load Time Outs	Yes	Yes	Yes
Automatic Daily Purge Cycle	Yes	Yes	Yes
Adjustable Daily Filtration	Yes	Yes	Yes
Adjustable Ozone	Yes	Yes	Yes
Inbuilt Digital Timeclock	Yes	Yes	Yes
Programmable Sleep Times	Yes	Yes	Yes
Programmable PowerSAVE Function	Yes	Yes	Yes
°C or °F Temperature Selection	Yes	Yes	Yes
Over Temp / Freeze Protection	Yes	Yes	Yes
Real Time Clock Battery Backup	Yes	Yes	Yes
EEPROM Settings Memory	Yes	Yes	Yes
EEPROM Reset	Yes	Yes	Yes
Self Diagnostics & Descriptive Error Codes	Yes	Yes	Yes
Safety Standards Certifications	CE / C-Tick / EN / TUV AS / NZS	CE / C-Tick / EN / TUV AS / NZS	CE / C-Tick / EN AS / NZS

\* Availability dependant on use of 1 spd or 2 spd pump 1

# Availability dependant on use of 1 spd or 2 spd pump 2



Head Office: 3/103 Railway Road North, Mulgrave NSW 2756 AUSTRALIA

P +61 2 4587 7766 F +61 2 4587 8766 E sales@spanet.com.au

spanetchina@spanet.com.au

[www.spanet.com.au](http://www.spanet.com.au)