

IMPORTANT:

Before using, check that the spa pool has been connected to a suitable weather protected outlet socket equipped with a double poled isolating switch that meets the requirements of the specification plate on the heater cover.

Introduction:

Congratulations on the purchase of a pool incorporating the Spa Power 500 electronic controller. This controller has been designed to offer more powerful accessories, superior control and superior ease of use than other competing controllers in its class. It makes use of an optimal combination of proven, reliable technology and innovative new sensor designs.

Quick operating instructions:

(1) Pump Mode button

Default state = auto mode on, pump and heater controlled automatically to maintain pool temperature.

Three pushes on this button cycle the system as follows. Push 1 = Auto off, pump on, heater automatically controlled.

Push 2 = Auto off, pump off, heater off.

Push 3 = Auto on, pump and heater controlled automatically.

(2) Aux/Air/Jets/Light button

Default state = off.

Two pushes of this button cycle the output as follows.

Push 1 = Output on.

Push 2 = Output off.

(3) Temperature setting - Bargraph display

Default setting = 37°C.

Holding down the up or down buttons adjusts the temperature setting as follows (steady dot).

Up: increases setting 0.5°C per beep, 1.0°C per bargraph dot.

Down: decreases setting 0.5°C per beep, 1.0°C per bargraph dot.

Minimum setting = 31°C, maximum setting = 40.5°C.

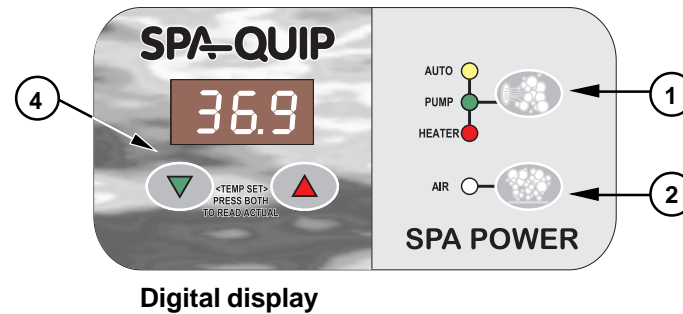
(4) Temperature setting - Digital display

Default setting = 37°C.

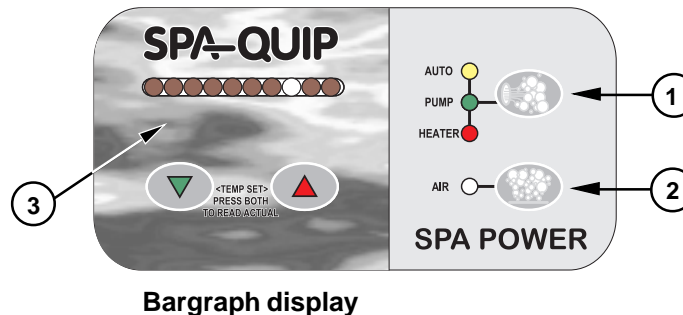
Holding the increase or decrease button down will automatically adjust the spa temperature setting. This setting is then displayed on the digital readout.

Up: increases setting 0.5°C per beep.

Down: decreases setting 0.5°C per beep. Minimum setting = 20°C, maximum setting = 40.5°C.



Digital display



Bargraph display

Detailed operating description:

Pump Mode button:

The Spa Power 500 controls the water pump and heater automatically to maintain the water at the desired temperature. The user can leave the system to look after the pool and know it will be at the right temperature whenever he/she wishes to use it.

The pump mode button allows the user to switch the pump on or off as desired when using the pool. For safety the heater is always automatically controlled. Automatic operation is the default and the system returns to automatic mode by itself at a fixed time (90 minutes) after the user last pushed the pump mode button. Pushing the pump mode button then leaves automatic mode and switches the pump on. If the pump was already on in auto mode then it will stay on.

Pushing the pump mode button again will switch the heater and pump off. The pump will run for a few seconds to cool the heater before switching off. One more push of the pump mode button will return to automatic mode. These operations are clearly indicated on the panel by coloured lights.

Clean up cycle:

If desired, a clean up cycle can be initiated after using the pool so the water is well filtered and brought back up to temperature if necessary. This is done by simply pushing the pump mode button so the pump is on and the system is not in auto mode. This will run the pump for a fixed period of time (90 minutes) circulating the water through the filter. The system will then return to auto mode and maintain the temperature ready for the next time the pool is used.

Auto Sanitising (filtration):

The Spa Power 500 monitors the amount of pump running used in normal pool operation. If this is low then it automatically runs the pump for an additional period to maintain the filtration/sanitisation of the pool.

Aux/Air/Jets/Light button:

This control gives the user on/off control over an additional pool accessory which may vary in different pool designs. In some cases it may not be fitted. Operation is clearly indicated by a coloured light on the panel. If left on, this accessory will automatically switch off after a fixed time (30 minutes). Usually switching on this accessory will cause the heater to switch off (loadshedding). This is in order to keep the total power load within a safe level.

Up and Down Temperature Control buttons:

The Spa Power 500 gives the user direct control of the pool temperature from the poolside panel. There is no need to look under the pool for the temperature adjustment. To adjust the temperature simply press the up or down button on the panel until the display corresponds with the desired temperature. There is a slight delay before the buttons operate to reduce the risk of accidental adjustment.

Pushing the Up and Down buttons together produces a flashing temperature display which indicates the current sensed temperature in the heater. This is not the pool temperature, but when the pump is running it should approximate the pool temperature. The pool temperature will be maintained very close to the set temperature.

Self Diagnostic Error Codes:

The Spa Power 500 controller has extensive self diagnosing abilities. In the event of a problem it will indicate an error number according to the nature of the problem. These are indicated by an alarm beeper beeping out the error number and by either the bargraph simultaneously flashing the corresponding dots up to the error number or the digital display indicating the error number. The error numbers and their meanings are listed below.

Error 1 (H2O) = PRIME FAILED

Primefailed is a special case. This is not necessarily a problem with the Spa Power 500 itself, but indicates that no water is being sensed in the heater. On the push of the pump mode button the pump will run for 10 seconds to try get water to the heater. If successful, normal operation will resume. If unsuccessful Error 1 will be indicated again.

Error 2 = not used.

Errors 3-8 = are fatal errors.

Operation will stop and will not continue until the controller is reset (switched off and on again at the main power).

Error 3 = STUCK BUTTON

This error indicates that one of the buttons in the control panel is stuck or has been held down for more than one minute. This may be caused by water getting into the panel or by damage to the control panel.

Error 4 = NO WATER SENSOR

This error indicates a problem with the optical water sensor in the heater. It may also be caused by the sensor being disconnected inside the unit or by damage to the sensor.

Error 5 = OVERTEMP

This error indicates that the digital temperature sensor in the heater has detected a temperature of 45°C or more. This is not necessarily a problem with the Spa Power 500 itself. It might be caused by excessive pump use during very hot weather or by disconnection or failure of the pump (no water flow).

Error 6 = KLIXON TRIPPED

This error indicates that the safety electromechanical over

temperature cut out on the heater has operated. This is not necessarily a problem with the Spa Power 500 itself. It might be caused by high temperatures during shipping, e.g. in the back of a sealed truck, or it might be caused by disconnection or failure of the pump. This cut out can be reset by pushing the red reset rod in the controller.

Error 7 = STUCK RELAY

This error indicates a problem with the heater control circuitry inside the unit.

Error 8 = NO TEMP DATA

This error indicates a problem with the digital temperature sensor in the heater. It might be caused by the sensor being disconnected inside the unit or by damage to the sensor.

Installation:

1. The heater should be located:
 - (a) on the pressure side of the pump.
 - (b) before the filter on the return line and before chlorinators and ozone injectors (if fitted).
 - (c) where it is accessible for maintenance and with enough clear room to remove the control head from the heater body.
2. The heating system must be installed in an enclosure rated IP24, i.e. it must be totally protected against water from all directions.
3. All installations must comply with AS3100 and any additional requirements of your local supply authority including any relevant code of practice.
4. The heater body may be plumbed so the water can be in either direction when mounted horizontally. If mounted horizontally, the heater must be mounted with its outlet sockets to the top so the safety water detection circuits are effective. Please note label on heater head which indicates correct side up.

5. Supply cord damage

If the supply cord of the equipment is damaged, it must be replaced by a repair shop appointed by the manufacturer because special purpose tools are required.

SPA POWER 500 OPERATING INSTRUCTIONS



Spa-Quip (Australia) Pty Ltd

Unit 2A, 4 Hudson Ave
Castle Hill, NSW 2154 Australia
Phone: (02) 9634 5600 Fax: (02) 9634 5900
email: service@spa-quip.com.au

Spa-Quip Ltd

PO Box 302-114, North Harbour Post Shop
Auckland New Zealand
Phone: (09) 415 8622 Fax: (09) 415 8621
<http://www.spa-quip.co.nz>
email: inquiry@spa-quip.co.nz