#### Introduction:

Thank you for purchasing a Spa Power 500 spa control system. This controller has been designed to offer more powerful accessories, superior control and better ease of use than other controllers in its class. It makes use of an optimal combination of proven, reliable technology and innovative new sensor design.

#### **Quick operating instructions:**

#### (1) Pump Mode button

The default state is Auto mode in which the pump and heater are controlled automatically to maintain the pool temperature. Three pushes on this button cycle the system as follows.

Push 1 = Auto off, Pump on, Heater automatic. Push 2 = Auto off, Pump off, Heater off. Push 3 = Auto on, Pump and Heater controlled automatically (back to default state).

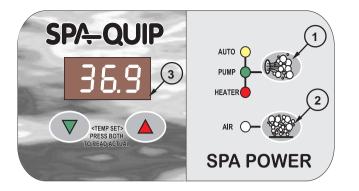
(2) Auxiliary Air, Jets or Light buttonThe default state is off.Two pushes of this button cycle the output as follows.Push 1 = Output on.Push 2 = Output off.

(3) Temperature setting - Digital display
The default setting is 37.0°C.
Holding down the Up or Down button will automatically adjust the spa temperature setting shown on the digital readout.
Up: increases the setting 0.5°C per beep.
Down: decreases the setting 0.5°C per beep.
The minimum setting is 20.0°C.
The maximum setting is 40.5°C.

## Detailed operating description:

#### (1) 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 correct temperature whenever he or 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 switches the pump on and terminates automatic mode. 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 the system 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 to filter the water after the pool has been used. This is done by simply pushing the pump mode button to leave auto mode and switch on the pump. 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 total time the pump is running in normal pool operation. If the pump has run for only a short time it will automatically run the pump for an additional period to maintain the filtration/ sanitisation of the pool water. (2) Auxiliary Air, Jets or Light button:

This button gives the user on/off control over an additional pool accessory which may vary in different pool designs. In some cases this accessory 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 to a safe level.

(3) Up and Down Temperature Control buttons: The Spa Power 500 gives the user direct control of the pool temperature from the poolside control 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 of the water in the heater housing. 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.

## **IMPORTANT:**

Before using, check that the spa pool has been connected to a suitable weather protected outlet socket, equipped with a double polled isolating switch, which is of the correct rating and complies with the local wiring regulations.

When installing refer to your local wiring code. In particular refer to ECP 2 and ECP 25 (AS / NZ). and EN 60364-4-1 and EN 60364-7-1 (EU). The system must be installed in such a way that live parts are not accessible by a person in the pool.

This appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance.

#### Self Diagnostic Error Codes:

The Spa Power 500 controller has extensive self diagnostic capabilities. In the event of a problem it will indicate an error number according to the nature of the problem. The error numbers and their meanings are listed below.

#### Error 1 (H2O) = PRIME FAILED

Prime failed is a special case. This is not necessarily a problem with the Spa Power 500 itself but indicates that no water is being detected in the heater housing. On the push of the pump mode button the pump will run for 10 seconds to try to get water to the heater. If successful, normal operation will resume. If unsuccessful Error 1 (H20) will be indicated again.

Error 2 is not used.

Errors 3-8 are latching 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 that 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 be caused by the sensor being disconnected or by damage to the sensor. *Error* 5 = OVERTEMPERATURE

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 hot weather or by disconnection or failure of the pump. *Error 6 = THERMAL CUT OUT 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 by disconnection or failure of the pump. This cut out can be reset by pushing the reset button on the lid of the controller.

Error 7 = STUCK RELAY

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

Error 8 = NO TEMPERATURE DATA

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



Warning: If the supply cord gets damaged the unit must be returned to the manufacturer or approved service agent or similarly qualified person to be repaired.

# QUICK CARD USER GUIDE SPA POWER 500A SPA CONTROLLERS

Please read these instructions carefully before use



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