

# The **“Naturally Clear” Ionic Pool & Spa Water Purifier.**

## **Operating Instructions.**

When first installed, the unit must have its clock set in order for it to operate correctly. When the unit is first installed and switched on, a banner message is first displayed showing the name of the product and its model number. After a 3 second delay a message

“PLEASE SET CLOCK” is shown and the unit enters the clock setting routine. If the unit has already been installed and its clock set, then the display will show all the previous system settings in turn. Any previous settings are retained in memory for at least 10 days in the event of a power failure or if the unit has been switched off. Refer paragraph labelled BACKWASH.

All functions are shown on the LCD display. As each function is selected with the MODE switch the setting may be changed by pressing the SET switch. When set as desired, pressing the MODE switch will store the setting and go to the next function.

Once all settings have been entered, the system shows a message that the system is operating and shows in turn all functions and their settings that you have chosen.

One of the required settings is the filter start time. If the chosen start time has not been reached, then a message is displayed stating

“WAITING ON START”

“START AT hh:00” with your chosen start time here.

The system will start whenever it is within its running period which begins with the start time and includes the number of hours chosen to run. Once past the end of the running period the system will not start again until the start time next day unless a dual cycle has been selected.

Once the system has been setup and is either running or waiting to start, changes can only be made by pressing the SET switch while the

“PRESS SET SW TO”

“CHANGE SETTINGS”

message is being displayed.

The choices shown are to set the following;

### **CLOCK.**

- a) Clock minutes.
- b) Clock hours.

### **FILTER.**

- a) Running time. You may select any single cycle run time from 2 hours to 12 hours or two dual cycles of 2 by 2 hours or 2 by 4 hours.
- b) The start time for single cycles may be set at 6am, 7am, 8am, 9am or 10am.
- c) The start time for dual cycles is fixed at 9am for the first cycle and 4pm for the second cycle.

### **IONISER.**

- a) Running time. This time is controlled by whatever has been set for the filter run times.
- b) Ionising current. The range is from 0 to 400 milliamps in steps of 50 milliamps.

### **BACKWASH.**

A manual mode can be entered by pressing the MODE switch which will allow the filter pump to be turned on for a period up to 4 hours or may be exited at any time by pressing the MODE switch again. If the pump is operating at the time it will turn it off. Pressing the mode switch again returns to normal mode.

## **DESCRIPTION**

The PWP1 is a swimming pool, spa and pond controller that controls the filter pump run times and current output to the Copper and Silver Alloy Electrodes. The clock can be set to run for single or dual run times and will remember times if the power is switched off for a period of 10 days.

## **Ionisation**

The PWP1 uses a process of passing a controlled current through the water between the copper and silver alloy electrodes. This process called electrolysis enables copper and silver ions to enter the water. The copper works to inhibit algae growth and the silver as an aid to fighting bacteria. IONS ACTIVE LED will be on to indicate this process is operational

## **Controller Mounting**

Find a suitable location to mount the control box. As with all pool equipment, it should be installed out of direct weather and no closer than 3 meters from the water's edge. Lift up the two mounting tabs and use two appropriate screws to mount the control box to the wall, keeping in mind that the power cable is 1.8m long and should be plugged directly into a general power outlet, not into an extension lead. Note that direct sunlight will fade the display over a period of time (warranty will not cover display replacement due to sunlight damage).

## **Water Balance**

On new pools the conductivity of the water can be low so it may take some weeks to obtain a copper reading. As the copper level increases the conductivity will also increase and the copper level will start to rise faster. It is fine to start on 250mA but you will need to monitor the copper levels every couple of weeks and when the level has started to rise towards 0.6ppm start reducing the Ions Output. Copper levels can climb quicker with salt pools as the conductivity of the water is higher. Filter run time and Ions Output can both be used to achieve correct copper levels. If the copper level in the water exceeds 0.9ppm turn the Ions Output to Zero. Water balance should be checked at least weekly during the swimming season and monthly over the winter period.

**Total Alkalinity 80 - 120 ppm**

**Water pH 7.0 - 7.4**

**Copper 0.4 – 0.8 ppm**

**Chlorine – 1.0ppm Plus**

## **Electrode Replacement**

When the electrodes erode to about 10mm in diameter it is time to replace them. Turn the power off to the PWP, undo the two electrode cable wing nuts, close any appropriate valves if the electrode housing is below water level then unscrew the large retaining nut on the side of the housing. Gently prize the black electrode carrier from the housing then undo the two brass electrode retaining nuts, use a cloth or gloves to handle spent electrodes. Fit replacement electrodes ensuring that two of the flat surfaces are parallel to one another and the brown silicon gaskets are located in the carrier correctly, fit washers and tightening nuts firmly. Align the carrier locator and fit into the housing then tighten lock nut. Open any closed valves and switch on power – check for leaks and tighten as required.

## **Technical**

Input - 240Vac 50Hz 10A 2400 Watt

Output – 240 Vac 10A 2400 Watt

Electrical Approval Certificate – Q96291

Approval Standard – AS/NZS3136:2001 Including Amendments 1&2

APVMA Approval Number 61279

Return to Manufacturer for repair.