#### **DESCRIPTION**

The PWP2 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 PWP-2 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.

## **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.

#### **SETTINGS MENU**

To enter the SETTINGS MENU push either the up or down buttons and the following will be displayed;

SETTINGS MENU

1) MANUAL MODE

Use *Up/Down* buttons to scroll to the option you wish to change. Press the *Enter* button to select the currently displayed menu item.

All menu items are shown below;

SETTINGS MENU

- 1) MANUAL MODE
- 2) FILTER TIMER
- 3) IONS OUTPUT
- 4) CLOCK
- 5) SAVE & EXIT

### 1) MANUAL MODE

MANUAL MODE 24HR UP=ON DOWN=OFF

Ionising out-put is switched off in MANUAL MODE

MANUAL MODE allows you to manually set the filter pump to 'on' by pressing the Up button or 'off' by pressing the Down button.

Pressing *Enter* will return you to the SETTINGS MENU. You can also keep pressing *Enter* to toggle the filter pump from 'on' to 'off' and vice versa.

MANUAL MODE will time out, after 24 hours the PWP2 will return to normal operation.

## 2) FILTER TIMER

FILTER TIMER (ON/OFF)

FILTER TIMER can be set to OFF or ON, this controls the power out of the filter pump socket, if OFF is selected you will be returned to the menu, when the FILTER TIMER is set to ON the following message appears;

SINGLE CYCLE DUAL CYCLE

Single cycle sub menu

FILTER CYCLE FILTER CYCLE START TIME X:XX END TIME X:XX

Dual cycle sub menus

FILTER CYCLE 5 FILTER CYCLE 2<sup>nd</sup> FILTER CYCLE 2<sup>nd</sup> FILTER CYCLE 5 START TIME X:XX END TIME X:XX

When you enter the FILTER SETUP menu you will need to select SINGLE CYCLE or DUAL CYCLE, the selected option will be flashing, you can use the *Up/Down* buttons to change to the selected option, once you select the required cycle by pressing *Enter* you will be prompted to set the cycle START TIME and END TIME, modify these by pressing the *Up/Down* buttons, push *Enter* to accept the setting. SINGLE CYCLE will run the filter pump once per day. DUAL CYCLE will run the filter pump twice per

Factory Default is ON, DUAL CYCLE from 09:00 to 13:00 and 16:00 to 20:00 NOTE: Setting the same start and end time will result in a 24 hour run time.

## 3) IONS OUTPUT

IONS OUTPUT SET FOR xxx mA

When you enter the IONS OUTPUT menu you may change the ion current setting by pressing the *Up/Down* buttons, if no change is required simply push *Enter*. Factory default is 200mA

## 4) CLOCK

TO CHANGE CLOCK TO CHANGE CLOCK SET MINS XX SET HOURS XX

When you enter the CLOCK menu you will be prompted to change the MINS settings, adjust minutes by pressing the *Up/Down* buttons, to accept the setting press the *Enter* button.

You will then be prompted to change the HOURS, adjust by pressing the *Up/Down* buttons, to accept the setting press the *Enter* button.

#### 5) SAVE & EXIT

When this menu is selected, push *Enter* to save ALL settings, the unit will return to normal operation automatically.

Note: If any of the menu items are left unattended for 3-4 mins the menu will time out and automatically save all settings and return to operation.

#### The Enter button.

This function is used for system back wash, pool vacuuming, spa heating, etc. The filter pump is allowed to run but the Ions Output is turned to OFF. After the four hours the system will automatically return to normal run mode.

MANUAL MODE 4HR UP=ON DOWN=OFF

When *Enter* is pressed the display will indicate you have entered Manual mode, operation is the same as manual mode described above with the only difference being that it will timeout in 4 Hours.

#### **Special Test Menu**

This menu is for special access and should normally not be required.

To enter test mode, press and hold the *Enter* button while the power to the unit is turned on, after 2 seconds release the *Enter* button.

OUTPUT CURRENT: OUTPUT CURRENT: NORMAL (DEFAULT) HIGH (CAUTION)

When output current is set to high it enables higher values to be set under the '3) IONS OUTPUT' menu, when set to normal the maximum value is 250mA but when set to high it can be set as high as 400mA.

If you select NORMAL (DEFAULT) it will also enter the production test, will ask you to set the clock and will perform a short output current test before saving the settings then resetting itself and returning to normal operation.

#### **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-2, 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.

# **WARRANTY - PWP Series**

The PWP-2 is covered by a limited 3 year warranty against component failure or faulty workmanship from the date of installation.

Faulty units should be returned in the first instance to the dealer from which the unit was purchased.

Damage to the unit due to misuse, power surges, lightning strikes or installation that is not in accordance with the manufacturer's instruction may void the warranty.

Warranty does not cover travel costs to or from installation site.

Return to supplier for repair

**Customer Record**. (To be retained by the customer)

Dealer/Installer Name
Model Number
Serial Number
Date Installed

For service assistance in Australia phone 1300 130 693 Out-side Australia +61 3 9720 3540

Dontek Electronics Pty Ltd P.O. Box 239 Bayswater Victoria 3153 www.dontekelectronics.com.au