# *Installation Manual for Future Wave Energy Saver*

## *MODEL: FW-1/2.2-P*

IMPORTANT:
Read prior to installing or operating your new Future Wave unit.
Incorrect Installation will VOID any warranty.

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A: Unit 3 - 2A Resources Crt, Molendinar, QUEENSLAND, 4214, Australia.
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# *1. The Basics*

**1.1 Parts you will receive:**
- Future Wave Energy Saver unit
- Warranty Certificate

**1.2 Locating your pool pump:**
- Find your pumping equipment near your pool
- Locate power source and refer to diagram on page 4 for attachment and installation

**1.3 Compatibility:**
- Future Wave Energy Saver is compatible with single phase, capacitor run motors up to 2.2kw (this includes 90% of residential pool pumps)
- Future Wave Energy Saver is incompatible with split phase motors with centrifugal switch gear, series motors of DC
- Compatibility with pool cleaners:

E.g. Barracudas and Creepy Crawlers in most cases an improvement to the performance of the cleaner has been found. However if the pump is below 0.75kw (1h.p.) or there are problems with the hydraulic system, use the flow adjustment (page 6) to increase performance

- If the cleaner doesn't work at first, try:
- Adjust speed valve at skimmer box.
- Check for air in the system. (no holes in hoses)
- Back wash filter.
- Check that the hose is not clogged with leaves.
- Check that the pump basket is empty.

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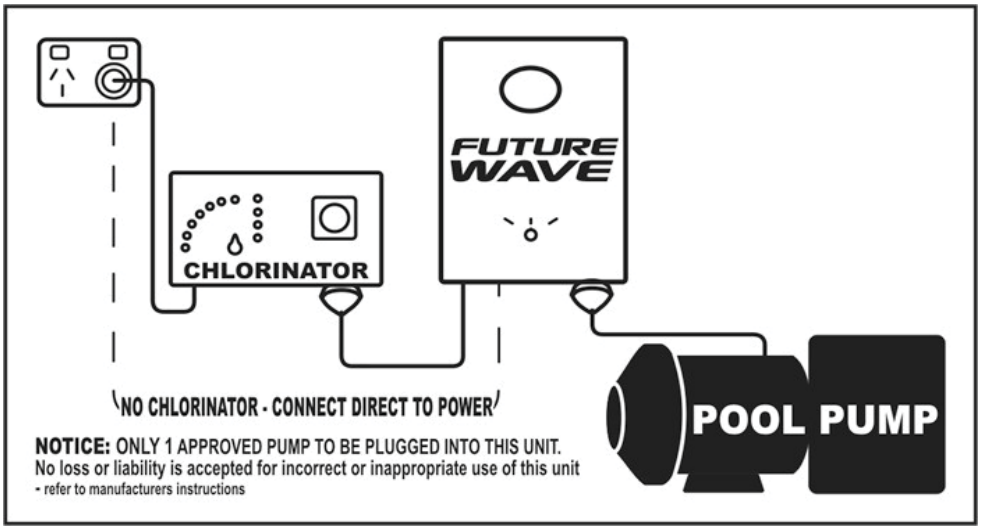
## *2. The Specifics*

**2.1 Attaching and Installing your Future Wave Energy Saver unit:**
The Future Wave Energy Saver has two mounting brackets that allow the unit to be hung or screwed vertically on a wall. The unit needs to be mounted in a location where it is protected from water spray and inclement weather but in such a way that does not impede the airflow causing the unit to over-heat and/or damage the unit.

WARNING: The Future Wave Energy Saver must not be used as a shelf for storing objects. Especially electrical components as this may interfere with the operation of the unit or damage the internal components.

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## *2.2 Operation of your Future Wave Energy Saver unit:*

- The only device to be plugged into the Future Wave Energy Saver must be a pump, only one pump can be used at any one time. Any other electronic device plugged into the unit will be damaged.

- If any metering devices are used they must be installed to the power supply before the Future Wave Energy Saver is installed.

- As per diagram supplied on page 4, the Future Wave Energy Saver is installed as the second last component in the series with the pump following it and will be controlled by the original isolation switch (for example, the Chlorinator, Timer or Isolation Switch)

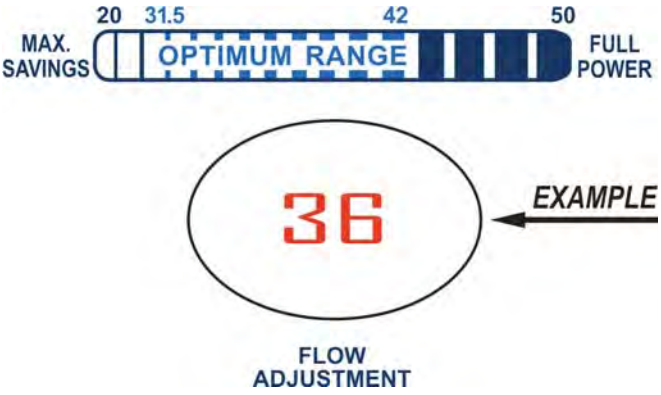
- When switching the unit ON in Maximum Savings in Flow Adjustment position (page 6), the pump will run at Full Power for approximately 1 minute before ramping down to Energy Saver mode.

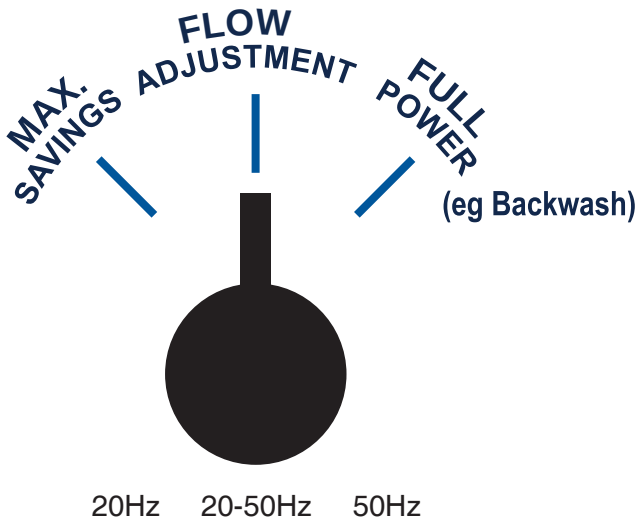
- The Future Wave Energy Saver has an overload protection feature built in to protect the pump. If a pump fault occurs, for example, pump seized, faulty capacitor or the pump is not compatible with the Future Wave Energy Saver, the energy saver mode will shut down and restart after approximately 30 seconds. This action will repeat itself 3 times, if it still detects a fault, it will shut down and restart the pump in the next start up cycle.
  *If problem persists, please contact agent.*

- In 99% of situations the filtration system runs at its optimum on the High Savings setting. This suits filters (because hydraulics and size of pumps vary, 120LPM-240LPM) and in all situations the water quality improves. There has been no need to increase the running time, however if desired to run the pump longer it would have little effect on energy consumption.

## 3. Settings

### 3.1 Diagram of Flow Adjustment

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### 3.2 MAXIMUM SAVINGS POSITION:

Maximum Savings Position is set to run the pump in at a maximum energy saving mode by using the lowest flow-rate. The “Max Savings” setting of 20Hz was used for energy rating testing.

### 3.3 FLOW RATE ADJUSTMENT:

Flow Rate Adjustment enables the use of the Flow Adjustment dial and Digital Screen. This can be used for adjusting pump flow rates if: e.g. Maximum Savings setting is not producing sufficient flow (this can occur with poor hydraulic situations or small pumps). This feature can also provide precise flow settings for water features such as heat pumps with the advantage of not having to use mechanical valves to achieve the correct flow.

When the Flow Adjustment Selector is set in position, use the dial to ramp flow up or down, once set (unless the dial is moved again) the setting will remain the same while switching selector switch. Try to keep setting in the Optimum Range shown on the scale to achiev -e savings of approximately 50-75% of your energy consumption. We have found this range to be the most beneficial for pool cleanin-g and water quality.

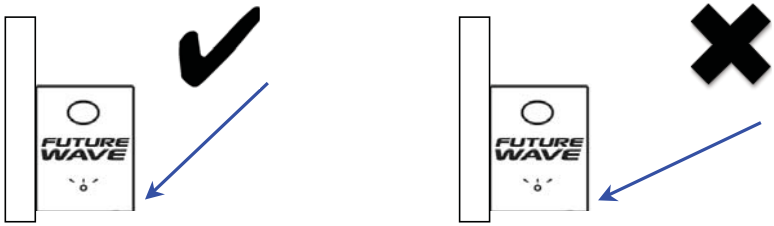
### 3.4 FULL POWER (BACKWASH):

This position allows the pump to run at Full Power. This is normally only required if the pump is needed to run at maximum pressure, e.g. backwashing or rinsing of sand filter.

*Optimum setting is 31.5 Hertz*

## *4. Ratings and Compliance*

- This unit has a protection rating of IP23 (Protected against spraying water at up to 60 degrees from the vertical) and must be installed in a position where it cannot be subjected to water spray below 30 degrees from the vertical (from below).




- This unit is <u>not</u> to be installed in the “pool zone” which is a defined area from the waters edge around a pool where no electrical equipment is to be installed.

- The Future Wave Energy Saver can be installed along with and adjacent to electrical equipment such as the Chlorinator and Pump that are correctly installed in most approved situations outside the “pool zone”.

- If this unit requires to be fixed wired (e.g. hard wired to Tariff 33) then ensure a licensed electrician in accordance with AS/NZ S3000 installs it.

- This equipment is tested to and complies with EMC standard AS/NZS CISPR14.1. It should be noted that the length of the input lead should not be modified and the maximum length of the output (pump motor) lead shall not be more than 1.8m to maintain compliance.

*If there are any doubts about the final installation, please consult the manufacture or an electrical contractor for guidance.*

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## 5. Frequently Asked Questions

- Do I need a plumber or electrician to fit the Future Wave Energy Saver?
  *No, using the Installation instructions on page 4 you will be able to fit the unit yourself.*

- Can I use the Future Wave Energy Saver on my spa?
  *Yes, on the spa filter pump, as long as it is a standalone single speed pump.*

- Do I need to service my Future Wave Energy Saver?
  *No, there are no parts of the Future Wave Energy Saver that need servicing.*

- Do I need to set a timer on the Future Wave Energy Saver or will it come on when my pump does?
  *No, plug the unit into your existing timer/chlorinator as demonstrated in the diagram on page 4.*

- How much money will I save using a Future Wave Energy Saver unit?
  *Dependant on electricity rates, you will generally see a 50-75% power reduction per hour.*

- What does the warranty cover?
  *The warranty covers parts and labour. Freight to the factory will be paid by the owner, return postage will be paid by Future Wave company if unit is found to be faulty.*

- What is the duration of my warranty cover?
  *1 year (12 months)*

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# 6. Warranty

## 6.1 General Information

- The manufacturer offers a one (1) year warranty on the Future Wave Energy Saver.

- This warranty applies to the original purchaser and as the unit is removable; if the purchaser moves residence the unit can be taken too. All units are fully factory tested prior to sale. If within 12 months of purchase, mechanical or electrical faults do occur for any reason, then such parts will be repaired or replaced at no cost to the owner (including labour). No replacement parts will be provided without the return of the defective unit and proof of purchase of the unit.

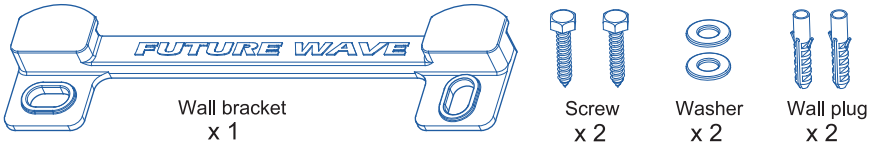
- The manufacturer will not be liable for any consequential loss or damage caused by operation outside our prescribed limits as outlined in our instruction manual. Incorrect installation or connection to incorrect power supply, changing internal wiring for tariff connections, misuse, abuse, negligence, accidental damage, normal wear and tear, or damage caused by water are not covered by this warranty.

- In case of failure the complete unit should be returned to the manufacturer, or distributor along with proof of purchase. Forward freight costs are the responsibility of the owner, however if the unit is found to be faulty, return freight costs will be paid by the company.

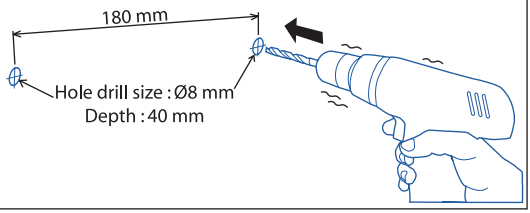
- Repair by anyone other than the manufacturer WILL VOID WARRANTY.

# Installation Instruction

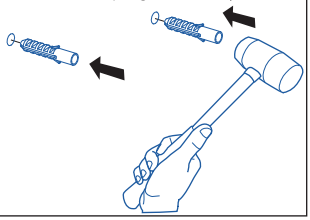
1. Accessories.



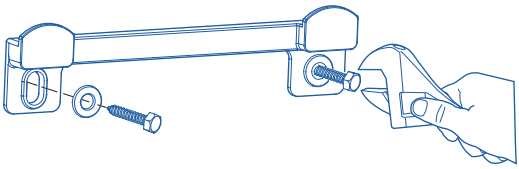

2. Mark 180mm approx. distance and drill the holes.



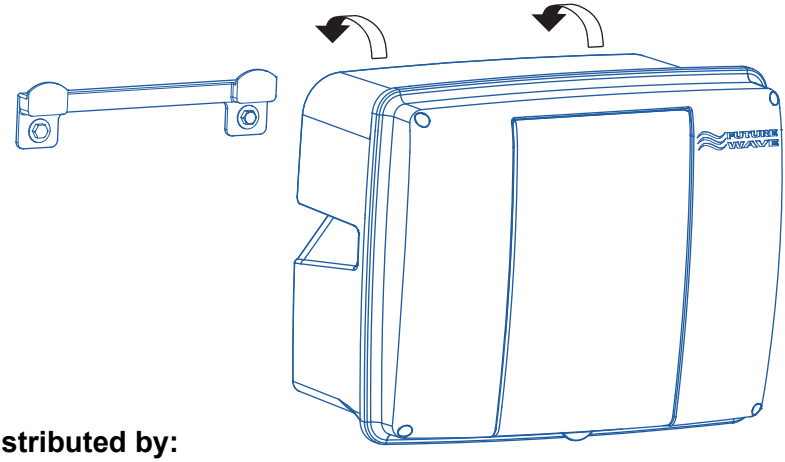

3. Insert the Wall plugs (masonry walls).



4. Install the Wall bracket by using washer and screw.



5. Final. Hook the Future Wave unit by align with the wall bracket.

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