

PondMAX

WATERGARDENING TO THE MAX

SOLAR BATTERY BACKUP BOX

INSTRUCTION MANUAL



AQUATEC
EQUIPMENT

DATE
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HOTLINE 1300 AQUATEC

MODEL
PS3500

WELCOME TO THE WORLD OF PONDMAX™.
YOU MADE THE **RIGHT** CHOICE INVESTING IN THIS
QUALITY PRODUCT. THANK YOU AND **ENJOY.**

BEFORE USING THIS PRODUCT, PLEASE READ THESE INSTRUCTIONS CAREFULLY AND MAKE YOURSELF FULLY FAMILIAR WITH THE UNIT. PLEASE KEEP THESE INSTRUCTIONS IN A SAFE PLACE FOR FUTURE REFERENCE.

TECHNICAL SPECIFICATIONS

DESCRIPTION	
LEAD ACID BATTERY	12V, / 24 AH (174 X 166 X 126MM)
CHARGING VOLTAGE AND POWER	DC 18V MAXIMUM INPUT POWER: 75W
OUTPUT 1 VOLTAGE AND POWER	DC 6V MAXIMUM OUTPUT POWER: 4W
OUTPUT 2 VOLTAGE AND POWER	DC 12V MAXIMUM OUTPUT POWER: 12W
OUTPUT 3 VOLTAGE AND POWER	DC 18V MAXIMUM OUTPUT POWER: 30W
OUTPUT 4 VOLTAGE AND POWER	DC 12V MAXIMUM OUTPUT POWER: 12W
SIZE	255 X 255 X 205MM
NET WEIGHT	9.3KG WITH BATTERY



WARNING

Discharged batteries are still explosive and contain toxic chemicals. **NEVER DISPOSE OF A BATTERY BY THROWING IT INTO THE TRASH, LANDFILL, INCINERATOR OR TRASH COMPACTOR.** Take it to an approved recycling centre. Contact your local council for further information.

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BENEFITS INCLUDE

- This special solar battery backup unit is used to store solar energy for day and night use and is originally designed for fountain pumps, but its application could be universally extended to air pumps and lights.
- The input power should be from the solar module or DC power supply with an output voltage of 18V.
- There are four output ports each of which has a different output voltage. The electronic connector of the appliances to their output 1 (6V), 2 (12V) and 3 (18V) should be compatible with the output port. The interface of output 4 (12V) is of universal terminal which could be compatible with any applicable dc equipment.
- The battery station has built in protection for overcharging and over discharging.
- There are seven LED indicators to show the status of system charging, timer, output 1, output 2, output 3 and output 4. The system indicator is bicolour.
- Green shows the battery is in normal operating status. Red shows the battery is in low voltage status, which requires the battery to be recharged and Red-Green flashing shows the battery is preparing its readiness to output.
- Timing function is provided only for output 3 (18V) to reduce the energy consumption. The pump connected to output 3 will work 10 minutes every hour periodically by the time, as energy saving mode, it is especially useful in winter or on cloudy days.



ASSEMBLING & OPERATION



Connect the input cable of the battery back up to the solar module or a DC power supply and tighten the protection screw. The connectors are protected against reverse polarity. Cable has specific connection which ONLY aligns one way. Don't insert the plug with reverse polarity by using unnecessarily force.

The charge yellow led indicator lightens when the battery is being charged no matter whether the system is ON or Off; otherwise the LED shuts off.

Electrically connect pumps and any other applicable DC equipment to the appropriate output ports of the battery station. The rubber covers for output 1 and output 2 are used to protect the ports when they are not in use. Remove the cover for the output and keep it appropriately for possible needs in the future. The rubber cover for output 4 is used to protect the ports ether in use or not in use. please remove the cover and fit it back after output 4 is connected following below steps.

Turn the "system on/off" switch to the "on" position, the "system" indicator shows green and the system is activated. The "system" indicator may show red and all outputs are disabled when the battery operates for the first time, since the battery may lose its energy while not in use in-store. It needs to be charged for no more than one day in bright sunshine, then it shows green and all outputs ports are ready to output.

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Put on the switches of the outputs that are in use, the indicators will lighten green. The corresponding appliances will start to operate. To stop operation just shut off the associated output switch. If the appliance with duplex switches such as photosensitive garden lights, it may not work immediately while the switch is put on, please refer to related manuals.

All power outputs except output 1 (6V) will automatically stop running while the battery is discharged to its low voltage limit A and the system indicator shows orange in the meantime. The output 1 (6V) will continue to work and be cut off until the battery station is discharged to its low voltage limit B and the system indicator shows red. Then all output ports stop outputting before the system indicator changes to green

The system indicator stays red before the battery is recharged to its normal voltage while it rises to the normal voltage, the system indicator will change to flashing red-green twice every 10 seconds. It will take another 2 hours before it changes to green and all the outputs start to output at the same time.

The timer on/off only regulates the running mode of the output 3 (18v) pump between intermittent mode and continuous mode. In the intermittent mode (ie., Timer on), a built-in timer is enabled to run the pump 10 minutes per hour periodically to save energy and it is especially useful in winter or on cloudy days. In the continuous mode, the built-in timer is disabled and the pump shall run continuously. This function is available only when the system indicator shows green.

While the timer function is activated, and the timer indicator shows green the pump works, if the indicator flashes (once per second) in green, the pump rests.

Turn the system to off position, all outputs ports will be disabled, the battery will still be charged in the daylight and then the appliances will have longer operating time when put to work in the evenings or special festive occasions.

The battery will always be charged in the sunlight no matter whether the system switch has been put to on or off and the system will automatically cut off the charging current while the battery is fully charged.



CAUTION

Do not charge the solar battery back up by any AC power supply directly, it is designed only for DC Power.

- Never connect any appliance whose rated power is larger than the maximum power listed in the below technical data list. otherwise it will automatically cut off
- Do not leave this battery back up in bad ambient environment
- Do not leave the battery back up in direct blazing sun light or expose it to extremes of heat or cold, which can affect its service life If possible place the battery in the shadow of the solar panel or your house or even a tree
- Do not dip the battery back up into water it is IP44

IP44 rated connector is often referred to as 'splash proof' and protects from objects greater than 1 millimetre in size and water spray from any direction.

TROUBLESHOOTING

If the system indicator shows red always and the pump does not work even though the solar module is in full sunlight more than one sunny day, please check the possible failures below:

1. The charge yellow indicator doesn't lighten - check connection to the solar module
2. The battery is out of its service life and need to be replaced. Replace the battery by the following the steps. Turn the unit upside down, undo the 4 screws, take the lid off, disconnect the battery, replace battery with new battery and replace lid.

Alternatively 'Output 1 18V' pump may bypass the battery backup and connect the pump to the solar panel directly and the pump will get almost the same performance on sunny days.

If the system indicator shows green and the pump still does not work, please check the possible failures below:

1. Check the timer indicator lightens, please note in this mode the pumps runs intermittently
2. The pump is blocked and clean the pump referring to the pump manual to do so

If the appliance is lights, please check the set manuals of the lights.



LIMITED WARRANTY 1 YEAR

- Warranty covers only appliance defects and faulty material and workmanship within a 1 year period.
- Faults arising due to accidents, misuse, not following manufacturer's guidelines/ instructions or power surges/spikes/brownouts will not be covered.
- Warranty will be void if any tampering removal of warranty labels or electrical circuitry is evident.
- Warranty will be void if the power cord is cut or damaged in any way.
- Warranty will be void if any visible signs of overheating are present.
- Loss of livestock, damage to property or personal injury caused by this product will not be covered.
- Warranty claims caused by installation faults will not be covered.
- It is the customer's responsibility to return the faulty appliance for any warranty claim, to Aquatec.
- For any warranty to be valid, an original proof of purchase must be provided.
- Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
- **A Warranty claim must be made within 1 year of the date of purchase.**
- Where Aquatec determines goods are being used in a manner contrary to the instructions, specifications or this Warranty, Aquatec reserves the right to terminate Extended Warranty for such goods and will provide written notice to the purchaser.

Please consult your retailer for quality original PondMAX replacement parts.

Visit www.aquatecequipment.com for your nearest stockists.

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