



## GUARANTEE

This product is guaranteed against defects in material and workmanship for 2 years from the date of purchase, under normal usage. The guarantee DOES NOT APPLY in case of improper use, negligence, lack of maintenance or accidental damage to the pump. If the pump fails due to a manufacturing fault within this period it will be either repaired or replaced free of charge. Liability is limited to replacement of the faulty product only; no other costs will be reimbursed. The guarantee is not transferable and does not affect your statutory rights. This guarantee does not confer any rights other than those expressly set out above. Excludes the pump impellor which may require replacing annually. If any parts need replacing, spares are available from your retailer.

Aquagarden products by Pennington have been exclusively designed in partnership with Interpet UK a Leading British water garden company.

Pennington,  
1280 Atlanta Hwy, Madison.  
GA 30650  
[www.PenningtonAquagarden.com](http://www.PenningtonAquagarden.com)

Leaflet Code: 07/09/2017



# universal all in one pond pump

500

for fountains, filters  
and waterfalls



Please visit [www.penningtonaquagarden.com](http://www.penningtonaquagarden.com)  
for helpful hints, tips, how-to videos and spares

Instructions español disponible descargar en: [www.PenningtonAquagarden.com](http://www.PenningtonAquagarden.com)

**PENNINGTON**  
**Aquagarden**  
beautifully simple water gardening

pond pump  
500

Congratulations on buying a  
Pennington pond pump.

This pump is designed with advanced technology, to run a wide variety of water features. The compact powerful motors are easy to maintain having a single moving part impeller system.

Please carefully read the following guide, which will enable you to get the best from your fountain pump.

**IMPORTANT**

Please attach proof of purchase to this manual and file in a safe place.

Please visit [www.penningtonaquagarden.com](http://www.penningtonaquagarden.com)  
for helpful hints, tips, how-to videos and spares

Instructions español disponible descargar en:  
[www.PenningtonAquagarden.com](http://www.PenningtonAquagarden.com)

CONTENTS

<b>Important Safety Instructions</b> .....	2
<b>Getting to know your Pond pump</b> .....	3
Parts descriptions / spares codes - with exploded diagram .....	4 - 5
Pump performance / flow chart .....	6
Technical specifications .....	6
<b>Installation</b> .....	7
Electrical installation .....	7
Locating your pond pump .....	8
<b>Maintenance and cleaning</b> .....	10
Routine maintenance .....	10
Monthly maintenance .....	11
Annual maintenance .....	11
Winter storage .....	11
<b>Troubleshooting</b> .....	12
Troubleshooting and maximise performance .....	12
<b>Faults - problem procedure</b> .....	13
Returning faulty pumps .....	13
Consumer advice contact details .....	13
<b>Guarantee</b> .....	14

# FOR INDOOR AND OUTDOOR USE IMPORTANT SAFETY INSTRUCTIONS

**WARNING** - TO REDUCE THE RISK OF ELECTRIC SHOCK, USE ONLY ON PORTABLE SELF-CONTAINED FOUNTAINS NO LARGER THAN 5 FEET IN ANY DIMENSION.

**WARNING** - RISK OF ELECTRIC SHOCK - THIS PUMP IS SUPPLIED WITH A GROUNDING CONDUCTOR AND GROUNDING TYPE ATTACHMENT PLUG. TO REDUCE THE RISK OF ELECTRIC SHOCK, BE CERTAIN THAT IT IS CONNECTED ONLY TO PROPERLY GROUNDED, GROUNDING-TYPE RECEPTACLE.

**WARNING** - TO REDUCE THE RISK OF ELECTRIC SHOCK, INSTALL ONLY ON A CIRCUIT PROTECTED BY A GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI).

## GROUNDING INSTRUCTION

**WARNING** - RISK OF ELECTRIC SHOCK – THIS PUMP IS SUPPLIED WITH A GROUNDING CONDUCTOR AND GROUNDING-TYPE ATTACHMENT PLUG. TO REDUCE THE RISK OF ELECTRIC SHOCK, BE CERTAIN THAT IT IS CONNECTED ONLY TO A PROPERLY GROUNDED, GROUNDING-TYPE RECEPTACLE.

**WARNING** - TO GUARD AGAINST INJURY, BASIC SAFETY PRECAUTIONS SHOULD BE OBSERVED, INCLUDING THE FOLLOWING:

**A) READ AND FOLLOW ALL SAFETY INSTRUCTIONS.**

B) **DANGER** – TO AVOID POSSIBLE ELECTRIC SHOCK, SPECIAL CARE SHOULD BE TAKEN SINCE WATER IS EMPLOYED AND INTENDED FOR FOUNTAINS, WATERFALLS, AND PONDS, WHICH ARE COMPLETELY SUBMERSED FOR PUMPING WATER AND ARE SUITABLE FOR OUTDOOR USE. FOR EACH OF THE FOLLOWING SITUATIONS, DO NOT ATTEMPT REPAIRS BY YOURSELF: RETURN THE APPLIANCE TO AN AUTHORIZED SERVICE FACILITY FOR SERVICE OR DISCARD THE APPLIANCE, IF THE APPLIANCE SHOWS ANY SIGN OF ABNORMAL WATER LEAKAGE, IMMEDIATELY UNPLUG IT FROM THE POWER SOURCE. DO NOT OPERATE ANY APPLIANCE IF IT HAS DAMAGED CORD OR PLUG, OR IF IT IS MALFUNCTIONING OR HAS BEEN DROPPED OR DAMAGED IN ANY MANNER.

C) CLOSE SUPERVISION IS NECESSARY WHEN ANY APPLIANCE IS USED BY OR NEAR CHILDREN.

D) TO AVOID INJURY, DO NOT CONTACT MOVING PARTS DIRECTLY.

E) CAREFULLY EXAMINE THE PUMP AFTER INSTALLATION, IT SHOULD NOT BE ENERGIZED IF THERE IS WATER ON PARTS NOT INTENDED TO BE WET.

F) ALWAYS UNPLUG AN APPLIANCE FROM AN OUTLET WHEN NOT IN USE, BEFORE PUTTING ON OR TAKING OFF PARTS, AND BEFORE CLEANING. NEVER YANK CORD TO PULL PLUG FROM OUTLET. GRASP THE PLUG AND PULL TO DISCONNECT.

G) DO NOT USE AN APPLIANCE FOR OTHER THAN INTENDED USE.

H) READ AND OBSERVE ALL THE IMPORTANT NOTICES ON THE APPLIANCE.

I) DO NOT PUMP FLAMMABILITY OR HEATED LIQUIDS.

**J) DO NOT RUN DRY.**

K) DO NOT CONNECT TO ANY VOLTAGE OTHER THAN SHOWN ON THE PUMP.

L) ENSURE THAT THE POWER SUPPLY CORD LOOPS BELOW THE ELECTRICAL OUTLET TO FORM A "DRIP LOOP". THIS WILL PREVENT WATER FROM RUNNING DOWN THE CORD INTO THE ELECTRIC OUTLET.

## SAVE THESE INSTRUCTIONS

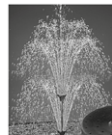
## GETTING TO KNOW YOUR POND PUMP

## THREE FOUNTAINS TO CHOOSE FROM

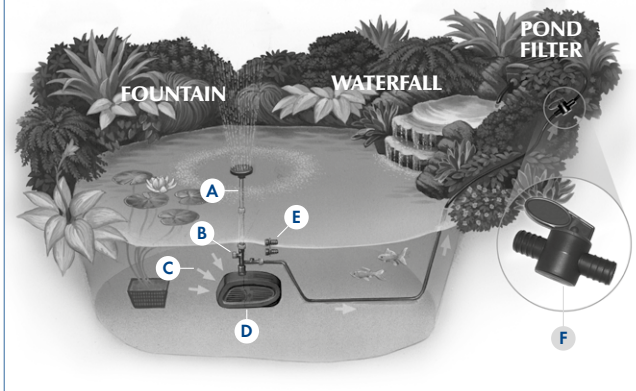
DAISY



## 2 TIER DAISY



**BELL**



## TO RUN FOUNTAINS, FILTERS, WATERFALLS AND FEATURES

A. 7.8" extension pipe.

**B.** Fully adjustable fountain control. Adjusts fountain height and width.

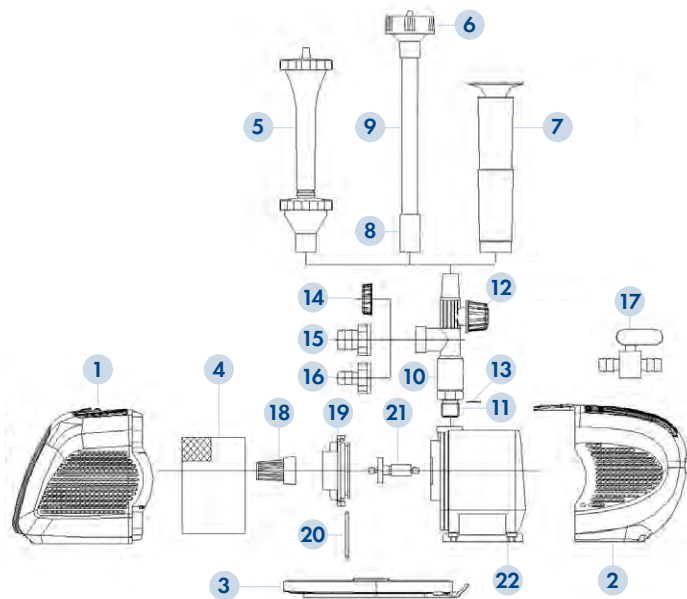
**C.** Low maintenance High performance Low velocity intakes prevent the pump from clogging.

**D.** Debris barrier protects pump from sludge.

**E.** Interchangeable 1" (25mm) and ½" (12.5mm) hose fittings.

**F.** 1" (25mm) in line flow control valve.

## GETTING TO KNOW YOUR POND PUMP



## GETTING TO KNOW YOUR POND PUMP

No.	Part Description	Code
1	Pre-filter cage front	N/A
2	Pre-filter cage back	
3	Pre-filter cage insert base	
4	Foam pre-filter	1057073
5	Double daisy jet	1057066
6	Daisy jet	
7	Bell jet	
8	Extension connector	
9	7.8" extension	
10	Fountain T piece	
11	T connector	
12	Fountain flow control	
13	T connector O ring	
14	Outlet cap	
15	1" hose tail	
16	1/2" hose tail	
17	1" flow control valve	
18	Intake cage	N/A
19	Impeller cover	N/A
20	Impeller cover O ring	N/A
21	Impeller complete	1057028
22	Motor	N/A

Parts 5 to 17 are supplied as one complete package (code: 1057066).

## GETTING TO KNOW YOUR POND PUMP

### Choosing a fountain, filter and waterfall pump

Universal pond pump flow rate in gallons per hour

6 ft	83 gph
4 ft	260 gph
2 ft	352 gph
0 ft	476 gph
MODEL	<b>500</b>

Flow is given as optimum rate

### Technical Specification and Performance

Cable Fitted	16'
Voltage	120V
Hertz	60Hz
Watts	43W
Maximum Flow	476 gph
	1800 lph
Maximum Lift	6'10"
	2.1m
MODEL	<b>500</b>

## INSTALLATION

### ELECTRICAL SAFETY INFORMATION:

**Caution:** Household indoor and outdoor use.



**WARNING** - Risk of Electric Shock. Mount the unit at a height greater than 1 foot from the ground surface. Install only to covered Class A GFCI receptacle that has an enclosure that is weatherproof with the attachment plug cap inserted or removed.

The power supply must meet the specification of the product.

### PUMP

The electric cord is permanently connected and sealed in the motor body. If the supply cord is damaged the pump must not be used. Do not use the supply cord to lift the pump as this may cause damage.



**WARNING** - All models must be used with an GFCI. To reduce the risk of electric shock, connect only to a properly grounded, grounding-type receptacle. To reduce the risk of electric shock, install only on a circuit protected by a ground fault circuit interrupter (GFCI).

Do not remove the grounding pin from the power cord plug. This pump has been evaluated for use with fresh water only. Attention has been drawn to the fact that special rules may exist concerning the installation of your pump. These pumps must not be used in swimming pools, or areas where people are in contact with the water. Always disconnect the power source whilst the equipment is being installed, repaired, maintained or handled.



**WARNING** - The pump is provided with a thermal cut out that temporarily switches off the pump in case of overheating and the pump may automatically restart.

**WARNING** - Never run the pump out of water for prolonged periods as this may cause irreparable damage.

**WARNING** - Risk of electric shock - This has not been investigated for use in swimming pools or marine areas.

## INSTALLATION

**GROUNDING INSTRUCTIONS** – This appliance must be grounded. In the event of a malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. The appliance is equipped with a cord having an appliance-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is installed and grounded in accordance with all local codes and ordinances.



**WARNING** - Improper connection of the appliance-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service representative if you are in doubt whether the appliance is properly grounded. Do not modify the plug provided with the appliance: if it will not fit the outlet; have a proper outlet installed by a qualified technician.

## LOCATING YOUR POND PUMP

The pump should be located on a firm and level base in the pond/water feature in a depth of at least 4", but no more than 7"2".

It is advisable to keep the pump off the bottom of the pond to avoid silt entering the pump causing excessive wear and increasing pre-filter cleaning.



**Never run the pump out of water as this may cause irreparable damage.**

## FOUNTAIN

Make sure there is ample cable from mains supply. Place pump in desired location. Adjust telescopic riser pipe so fountain head is above surface of the pond. Fountain height can now be adjusted, see "Adjusting dual control T-piece" diagram. The fountain ball joint can be used to adjust for uneven pond floors ensuring the fountain display is kept vertical and within the pond. See "Getting to know your pond pump" fittings for parts and descriptions.

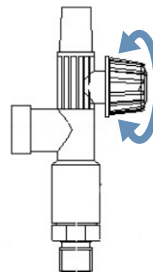
**Tip:** Ensure that any fountain, waterfall, filter or feature fitted does not empty water out of pond/water feature. In windy conditions it may be necessary to shut off or reduce the height of your fountain display to prevent water loss. Also see the explanatory diagram on the top face of your pump carton.

## INSTALLATION

### ADJUSTING FLOW CONTROL

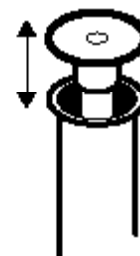
Turn **clockwise** to **decrease** the flow.

Turn **anti-clockwise** to **increase** the flow.



### BELL AND TULIP FOUNTAIN

Adjust Bell by moving head higher for small bell and lower for a wider bell shape.



**Tip:** Ensure that any fountain or feature fitted does not empty water out of pond/water feature. The Bell Jet does not need the foam pre-filter so requires little maintenance when used with the pre-filter cage only.

**Tip:** The 1" hose will give maximum performance when fitted to the T-piece for a small waterfall of feature.

## MAINTENANCE & CLEANING



**WARNING** - Failure to carry out routine maintenance leaving the pump under reduced or no flow conditions for long periods (i.e. blocked optional Daisy fountain pre-filter) will result in a shorter pump life and will invalidate the guarantee.

**Universal All in One Pumps** are centrifugal pumps with a magnetic impeller movement driven by a watertight synchronous motor. They require minimum cleaning, only periodic cleaning of the pre-filter and impeller is necessary.

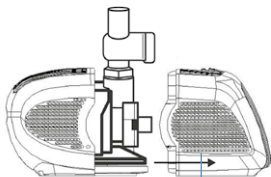
### ROUTINE MAINTENANCE

Carry out routine maintenance when pump flow is visibly reduced.

1. Switch off electricity.
2. Remove pump from pond (do not use the cable to lift the pump).
3. Remove the front of the pre-filter cage by depressing the button and pulling apart. Wash the cage thoroughly in fresh water. A blocked pre-filter (only used with Daisy Jet fountain) will reduce pump flow. Follow steps 1 and 2 below.

#### STEP 1: ROUTINE

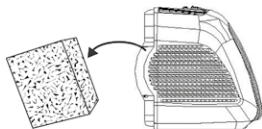
Firmly pull pre-filter cage from pump motor.



DEPRESS BUTTON

#### STEP 2: ROUTINE

Remove pre-filter foam (if fitted), and wash thoroughly in fresh water. The pre-filter is for use with Daisy Jets only. A blocked foam will reduce the pump flow rate.



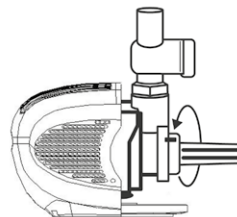
## MAINTENANCE & CLEANING

### MONTHLY MAINTENANCE

Following as for Routine Maintenance (steps 1 and 2) and then steps 3 and 4.

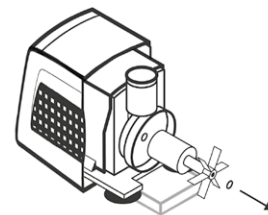
#### STEP 3: MONTHLY

Remove impeller cover by turning anti-clockwise to release lock. Then pull firmly away from pump motor and cage.



#### STEP 4: MONTHLY

Remove impeller from pump motor. Wash parts with fresh water carefully.



### ANNUAL MAINTENANCE

Dismantle pump and examine all parts for wear or damage, replacing any parts that show obvious wear and/or damage. (See getting to know your pump for parts/description and replacement parts codes.) Particular care should be taken to examine the cable entry point and the cable; if there is any sign of damage the pump should be discarded.

### WINTER STORAGE

The pump can be run in the pond during the winter but care should be taken to ensure that it is fully immersed and cannot freeze solid. If the pump is not used during winter, follow annual maintenance procedure and store frost-free in the house or garage until spring.

## TROUBLESHOOTING

### PROBLEM

#### Low flow from pump

1. Follow routine cleaning procedure if no improvement.
2. Follow monthly cleaning procedure.
3. Ensure pipe work is not blocked, leaking or is laid so that it gets crushed or kinked.
4. Keep the height that water is to be pumped from the water surface (called Head) to a minimum. The higher the head the lower the flow rate and the more wear on the pump.
5. Use the largest diameter, smoothest bore pond hose over the shortest distance and keep hose fittings to a minimum. This removes frictional loss of flow and so increases pump flow rates.

#### Poor Fountain performance

- Reduced height.
- Jets blocked.

Use foam insert with Daisy Jets for lower maintenance.

#### No flow from pump

1. Check power supply is on.
2. Check fuse and wiring  
(SEE ELECTRICAL INSTALLATION).
3. Follow low flow procedure as above.

If none of the above works, see 'Faults - Problem Procedure' on page 13 or visit [www.penningtonaquagarden.com](http://www.penningtonaquagarden.com) for helpful videos.

#### DAISY

To clean, remove head and rinse.

Use optional foam pre-filter with Daisy Jet heads.



## IMPORTANT

### FAULTS - PROBLEMS PROCEDURE

Before returning your pump to your retailer, please carry out the following steps. This will solve most problems quickly and easily.

1. Ensure electrical procedure has been followed fully. Check fuse and any cable connectors/switch boxes.

**NOTE:** If the pump has overheated the thermal overload will temporarily switch off the pump.

2. Follow the steps below:
  - (a) Follow routine maintenance and check pump.
  - (b) Follow troubleshooting guide.
  - (c) Follow annual maintenance guide.
3. Return pump to point of purchase for inspection and advice.  
You may need proof of purchase.

Please visit [www.penningtonaquagarden.com](http://www.penningtonaquagarden.com) for helpful hints, tips, how-to videos and spares.



#### Environment friendly disposal

You can help protect the environment. Please remember to respect the local regulations by handing in non-working electrical equipment to an appropriate waste disposal centre.

### CONSUMER ADVICE CONTACT DETAILS

Pennington  
1280 Atlanta Hwy.  
Madison, GA  
30650  
Tel: 1-800-285-7333  
[www.penningtonaquagarden.com](http://www.penningtonaquagarden.com)