



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.

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Leaflet Code: 07/09/2017



universal all in one pond pump

850/1200/1700

for fountains, filters
and waterfalls



Please visit www.penningtonaquagarden.com
for helpful hints, tips, how-to videos and spares

Instruccions español disponible descargar en: www.PenningtonAquagarden.com

PENNINGTON
Aquagarden
beautifully simple water gardening

pond pump
850 / 1200 / 1700

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
for helpful hints, tips, how-to videos and spares

Instructions español disponible descargar en:
www.PenningtonAquagarden.com

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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

DAISY
H 100cm
W 160cm



TRIPLE
H 70cm
W 100cm



BELL
H N/A
W 55cm

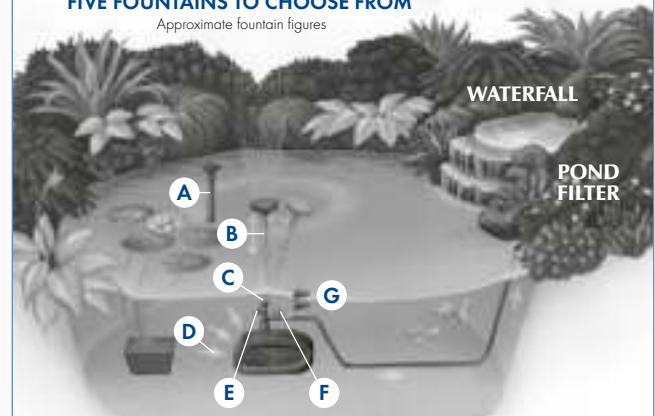


TULIP
H 30cm
W 150cm



FIVE FOUNTAINS TO CHOOSE FROM

Approximate fountain figures



TO RUN FOUNTAINS, FILTERS, WATERFALLS AND FEATURES

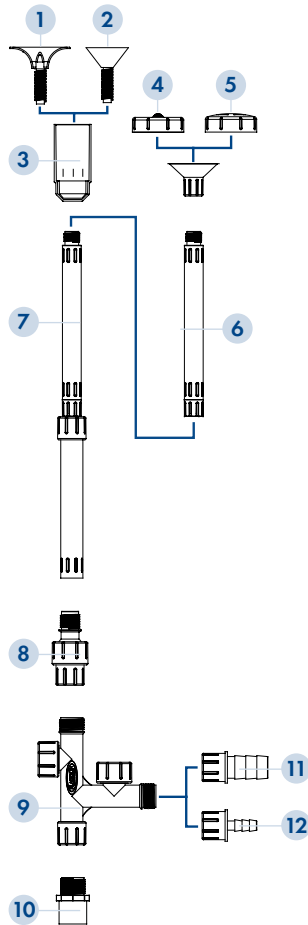
- A. 7.8" extension pipe.
- B. 11.8" adjustable telescopic extension pipe.
- C. 20° +/- ball joint adjustment to compensate for uneven pond floor.
- D. Low maintenance High performance Low velocity intakes prevent the pump from clogging.
- E. Fully adjustable fountain control. Adjusts fountain height and width.
- F. Fully adjustable flow control for filters/waterfalls or features.
- G. Interchangeable 1" (25mm) and 1/2" (12.5mm) hose fittings.

GETTING TO KNOW YOUR POND PUMP

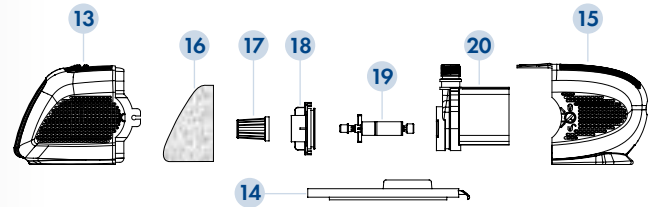
No.	Part Description
1	Bell Jet
2	Tulip Jet
3	Jet Housing
4	Daisy Jet
5	Triple Jet
6	7.8" Extension Pipe
7	11.8" Telescopic Extension Pipe
8	Ball Joint
9	T-piece
10	Pump Outlet Flange
11	1" (25mm) Hose Fitting
12	1 1/2" (2.5mm) Hose Fitting

For spares for your Pond Pump select compatible spare part numbers.

Please note: Spares/replacements of all of the parts/ fittings listed above are available as part of a 'Complete Fittings Set' - Code number: 1057080



GETTING TO KNOW YOUR POND PUMP



For spares for your Pond Pump select compatible spare part numbers

No.	Part Description	Spare Code 850	1200	1700
13	Pre-filter Cage (Front)	N/A	N/A	N/A
14	Pre-filter Cage (Base)			
15	Pre-filter Cage (Back)			
16	Optional Pre-filter Foam	1057097	1057097	1057097
17	Optional Pre-filter Cage	N/A	N/A	N/A
18	Impellor Cover	N/A	N/A	N/A
19	Impellor Complete	1057035	1057042	1057059
20	Motor	N/A	N/A	N/A

GETTING TO KNOW YOUR POND PUMP

Choosing a fountain, filter and waterfall pump

Universal pond pump flow rate in gallons per hour

12 ft			279 gph
10 ft			437 gph
8 ft			596 gph
6 ft	92 gph	325 gph	728 gph
4 ft	376 gph	641 gph	837 gph
2 ft	573 gph	792 gph	1392 gph
0 ft	832 gph	1162 gph	1585 gph
MODEL	850	1200	1700

Flow is given as optimum rate

Technical Specification and Performance

Cable Fitted	16'	16'	16'
Voltage	120V	120V	120V
Hertz	60Hz	60Hz	60Hz
Watts	56W	78W	158W
Maximum Flow	832 gph	1162 gph	1585 gph
	3150 lph	4400 lph	6000 lph
Maximum Lift	6'6"	7'5"	13'5"
	2m	2.3m	4.1m
MODEL	850	1200	1700

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

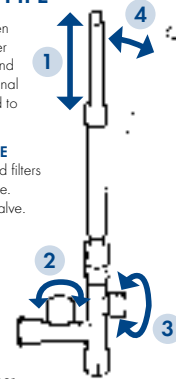
Make sure there is ample cable from mains supply. Place pump in desired location. Adjust telescopic riser pipe so fountain head is above surface of the pond. Fountain height can now be adjusted, see "Adjusting dual control T-piece" diagram. The fountain ball joint can be used to adjust for uneven pond 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

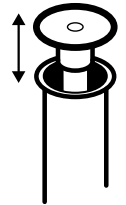
ADJUSTING DUAL CONTROL T PIECE AND TELESCOPIC RISER PIPE

- 1** Adjust height by unlocking collar then pushing or pulling the telescopic riser pipe (see "Getting to know your pond pump" for parts descriptions). Optional additional extensions can be added to increase the height.
- 2** **OUTLET FLOW CONTROL VALVE**
Supply water features, waterfalls and filters by adding 1" or 1/2" fittings and hose. Adjust flow by turning flow control valve.
- 3** **FOUNTAIN FLOW CONTROL VALVE**
Adjust fountain jet flow by turning flow control valve.
- 4** **FOUNTAIN BALL JOINT**
Adjust the collar of the ball joint to enable the extensions to be moved compensating for a uneven pond floor.



BELL AND TULIP FOUNTAIN

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



WATER FEATURE / FILTER / WATERFALL

Install as for Fountain. Depending on water feature to be supplied, your pond pump can be used with the dual control T-piece 1" or 1/2" hose fitting (see "Adjusting dual control T-piece" diagram). Hose clips should be used to secure hose.

Tip: The larger 1" hose fitting will give maximum pump flow performance.

- Ensure pipe work is not blocked, leaking or is laid so that it gets crushed or kinked.
- 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.
- 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.

Also see the explanatory diagram on the top face of your pump carton.

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.

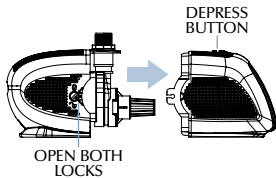
ROUTINE MAINTENANCE

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.

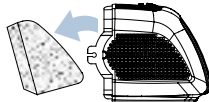
STEP 1: ROUTINE

Firmly pull pre-filter cage from pump motor.



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.



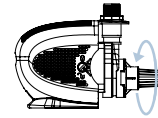
MAINTENANCE & CLEANING

MONTHLY MAINTENANCE

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

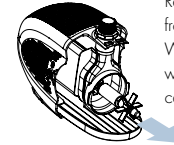
STEP 3: MONTHLY

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 the 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.
Clean flow adjuster and fountain head. Wash under a tap or hose.
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 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 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