

PondMAX

WATERGARDENING TO THE MAX

SKIMMER & WATER FEATURE PUMP

INSTRUCTION MANUAL



EVOII
SERIES

888.868.1185

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www.pondmax.com

FOR MODELS:

**22EV200 - EV1800
22EV225 - EV2400
22EV250 - EV3000
22EV275 - EV3600**

VERSION
JUNE 2016

PondMAX**evolll**
SERIES

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
 BECOME FAMILIAR WITH THE UNIT. PLEASE KEEP THESE INSTRUCTIONS IN A SAFE PLACE
 FOR FUTURE REFERENCE.

TECHNICAL SPECIFICATIONS

DESCRIPTION	EV1800	EV2400	EV3000	EV3600
MAXIMUM WATER FLOW(GPH)	1800	2400	3000	3600
MAXIMUM HEAD (FT)	16	20	21	22
POWER CONSUMPTION* (W)	60	100	125	160
VOLTS (V)	115	115	115	115
FREQUENCY (HZ) AC	60	60	60	60
INLET Ø THREAD (INCH)	1½	1½	1½	1½
OUTLET Ø THREAD (INCH)	1½	1½	1½	1½
THREADED BALL JOINT INCLUDED	Yes	Yes	Yes	Yes
CABLE LENGTH (FT)	32	32	32	32
RECOMMENDED TUBING SIZE (INCH) ID	1-½	1-½	1-½	1-½

* SUBJECT TO VARIATION ACCORDING TO LOAD

OTHER MODELS AVAILABLE IN THE EVOIII RANGE	EV700	EV900	EV1200
MAXIMUM WATER FLOW(GPH)	700	900	1200
MAXIMUM HEAD (FT)	10	14	15.5
VOLTS (V)	115	115	115

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SKIMMER & WATER FEATURE PUMPS

DESIGN HIGHLIGHTS

The PondMAX EVOII Skimmer & Water Feature Pumps have been manufactured to provide you with the best quality pumps for your water feature. Visit our website to view our range of pond filtration, outdoor/underwater lighting, water treatments and general accessories.

- **SMART MAG™ Motor Protection** - Provides longevity by preventing motor burnout.
- **Energy Efficient** - Exceptionally low power consumption to high-head height / high-volume flow conversion.
- **Threaded Inlet & Outlet** - Suitable for submersible or external operation and can adapt to different fittings provided.
- **Can Be Installed Vertical or Horizontal** - Provides flexibility for installation in many different applications.
- **Open Vane Impeller Design** - Handles large particles and resists clogging.
- **Tool-less Assembly** - For easy maintenance. No special tools required.

BENEFITS INCLUDE

- PondMax Skimmer & Water Feature pumps are suitable for use in many different applications including skimmers, water features, aquatic systems and hydroponics. Your pump can be used in either submersible or external applications.
- Skimmer & Water Feature pumps are a magnetically driven pump, therefore they cannot suck from a water level that is below the inlet level when used externally.
- Your pump has a single moving part (an impeller) enabling easy cleaning and maintenance.
- The models EV700 - EV3600 Pumps have SMART MAG™ motor protection, which analyses the speed and torque of the motor.
- SMART MAG™ intelligent circuitry also provides a soft start for the pump on startup and helps to avoid any sudden jolting. The intelligent system will change the motor speed to maximize the flow of water in the given circumstances.
- Also if the Impeller gets jammed or stops, the circuitry will sense the state and cut the power automatically for 3 seconds and then power up again. This procedure will repeat 3 times. If the rotor is still jammed, it will activate a prolonged low state, till the pump is turned off, and adequate maintenance is carried out. Thus minimizing motor burnout, due to electrical heat, through lack of water flow through the motor.
- The motor and electrical components are totally encapsulated in epoxy resin, ensuring safe operation under water.
- Skimmer & Water Feature pumps rely on water to cool and lubricate it. Therefore no harmful oil or grease lubrication is required.
- PondMAX Skimmer & Water Feature Pumps are continuous rated therefore are designed to operate 24/7.



IMPORTANT SAFEGUARDS

Correct and safe use of the system requires strict compliance with the safety instructions. For safety reasons, persons less than 16 years of age or persons that are not familiar with these instructions should not use this equipment.

- Any damage to the equipment or unmerited operation will bring dangers to the surrounding precincts. If there is any damage of the equipment, it must not be used. The equipment should be placed out of reach of children.
- For your own safety, disconnect from the power supply before any maintenance. Always unplug the pump from the power supply when not in use. Never pull the cable to disconnect the plug from the power supply - grasp the plug and pull to disconnect. If required, have a qualified electrician install a weatherproof power supply point near to the pond or water-feature (within the cable length of the appliance).
- When used in submerged application, be sure the equipment is completely in the water. The depth should not be greater than 6.5Ft.
- Do not operate the pump if the appliance or any components of the system, such as the power cable, has been damaged. Check appliance for defects regularly.
- For safety, plug the pump into an electrical outlet with a (GCFI) Ground Fault Circuit Interrupter.
- To avoid an electric shock, do not attach the plug to the power supply socket with wet hands. The drip loop method should be used to prevent water from traveling down the cable and onto the plug or power supply. If the plug does get wet, do not unplug the cable. Disconnect the circuit breaker that supplies power to the power supply point. Then unplug and examine the plug and power supply point for presence of water. If the power point has become wet, you should consult an electrician before using the power point again.
- Do not install or store the appliance where it will be exposed to extreme hot or cold temperatures. Do not use in water above 95°C.
- Do not cut the cable as this will result in voiding your warranty.
- Care should be taken to arrange the power cable so that it cannot be accidentally tripped over or pulled.
- Do not attempt to repair the electrical appliance yourself. Return to an authorized service center or place of purchase if a fault occurs, (regular maintenance is not considered repair and is required by user).

PRODUCT SPECIFIC SAFEGUARDS

- Do not operate the pump without water in your plumbing at any time, permanent damage may occur.
- When used in submerged application, be sure the equipment is completely in the water. The depth should not be greater than 6.5Ft. If used externally, the pump must have adequate flooded suction at all times.
- The pump is designed to be used inside skimmers, directly in a pond or in any other fresh water features.
- The pump should only be used in clean water. Do not use the pump in, or with, any chemicals such as a solvent or gasoline.
- The PondMAX Skimmer & Water Feature Pumps are cooled by water flowing through the inside of the motor body. If the pump flow becomes restricted it will overheat and could cause permanent damage. Large tubing size is strongly recommended to deliver adequate water flow to cool the pump.
- The pump needs to be cleaned regularly to prevent the pump becoming blocked, thus causing the pump to overheat and burn out. This is not a warrantable event. It is strongly recommended not to select a pump that is too small for the job required.



SKIMMER & WATER FEATURE PUMPS

INSTALLATION

For your convenience we have provided two different plumbing scenarios. Note: If used in submersible applications, use the hosetail fittings. However if used externally, use the (2) Coupling Fittings provided in fitting pack.

SUBMERSIBLE USE: When used inside a pond skimmer / water feature environment, follow procedure as outlined below.

- For best results, use the tubing size recommended in the Technical Specification table. Depending on the pump size and your tubing size, select the Hosetail required for and evaluate which step on the Hosetail will be used. If you are using 1-1/2" hose and you are connecting it to the 3/4", 1", 1-1/4", 1-1/2" Hosetail supplied, remember to saw off the smaller size connection (I.E.: 3/4", 1", 1-1/4" step). Otherwise it will create an unnecessary restriction in the plumbing system.
- A Swivel Ball Joint Fitting is provided for your convenience when used specifically in a submersible application. This is because the diagonal side sections of the ball-joint may seep water when in use. The fittings pack also includes the necessary red washers. Select the one that will fit the female connection of the ball-joint. Place it firmly in the locking nut. Now screw the locking nut of the ball-joint onto the outlet of the pump. Fasten firmly but do not over tighten.
- Place a red washer firmly in the locking nut on the Hosetail fitting. Now thread the locking nut of the Hosetail onto the Swivel Ball Joint Fitting. Fasten firmly but do not over tighten.
- Now connect the tubing to the Hosetail. Remember to use Stainless Steel Hose Clamps to fasten the hose on to the Hosetail barbs. This is to ensure that the pipe does not blow off at a later time or leak at this point in the plumbing system.
- Direct the hose to your desired location.

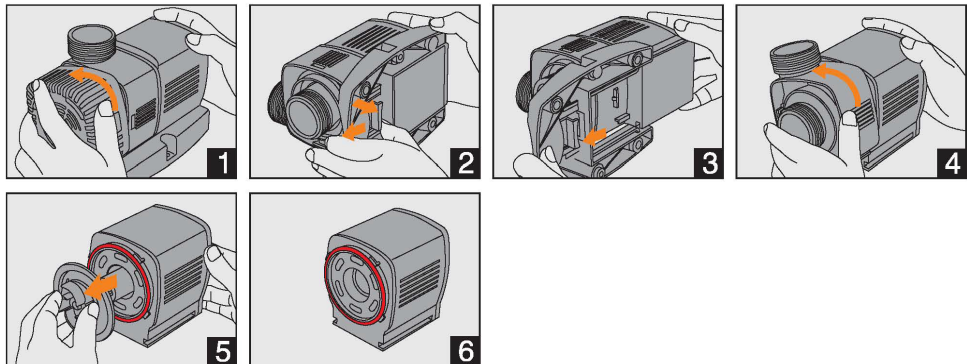
EXTERNAL USE: When installed outside the pond environment, follow procedure as outlined below.

- For best results in external applications, the pump must have adequate flooded suction at all times (installed outside pond, below elevation of the surface of water). Also reference the tubing size recommended in the Technical Specification table to make sure the new or existing plumbing configuration is sized correctly.
- In external applications it is necessary to remove the Front Filter Screen of the pump to expose the threaded inlet. Do this by removing the Base Plate of pump (see "Cleaning Instructions" Section for more detail) and then turn Front Filter Screen counterclockwise, then pull away from Pump Motor Body. NOTE: You will not need the Front Filter Screen in an external application, so feel free to keep with this instruction manual or discard.
- The fittings pack includes (2) 1-1/2" female Coupling Fittings, which are meant to fit directly onto both the male threaded inlet and outlet on pump.
- Now thread a coupling onto both the inlet and outlet of the pump. Fasten firmly but do not over tighten. To seal adequately, the use of thread seal tape may be required (available at your local dealer).
- Make sure that the suction line (inlet side of plumbing) has a suction screen or leaf strainer to catch large debris that could potentially harm pump (ask your local dealer for further information).
- Now the pump is ready to be connected to new or existing plumbing configuration. Extra fittings and adapters may be required (available at your local dealer), based on the specific application.

CLEANING INSTRUCTIONS

Begin by ensuring that the main power supply is disconnected before attempting any maintenance of the unit or the water body. Remove the unit from the water. Please clean regularly (at least once a month) to ensure strong water flow. Failure to maintain the unit could result in a burnt out motor and other damage.

- All PondMAX Skimmer & Water Feature Pumps are water cooled. If pump becomes restricted or blocked, it may overheat and could cause permanent damage.
- The motor unit of the pump is encapsulated with epoxy resin and does not need lubrication. Regular inspections, cleaning and maintenance of impeller is necessary to ensure longer life. In the center of the impeller you may notice a small hole opening that protrudes through the ceramic shaft from front to back. It is important that this opening is kept unblocked at all times. This is a cooling channel for the motor.
- To unclip the front filter screen from the front of the pump, twist the cage in a counterclockwise direction and pull forward. See below for diagram.
- Now with the Front Filter Screen off, go ahead and clean the screen. Make sure. Examine the openings in screen to ensure all are unblocked. Clean with a suitable brush if necessary.



1. Turn the Front Filter Screen in the direction as indicated by the arrow, then pull away from Pump Motor Body.
2. Locate snap-fit release under Base Plate using the arrows above. Using your thumb, apply pressure and unclip Base Plate until it releases from Pump Motor Body.
3. Remove Base Plate by pulling away from pump motor in the direction of arrow above.
4. To remove the impeller of the pump, turn the Impeller Cover Housing in an counterclockwise direction as indicated by the arrow above, to the stop position. Then separate the Impeller cover from the Pump Motor Body.
5. With one hand gripping the Pump Motor Body, secure grip of other hand tightly on the fins of the Impeller and pull out the Impeller assembly (take care not to break ceramic shaft.) The black disc behind the fins of Impeller is part of the Impeller assembly. Clean the Impeller with water and vinegar and a suitable brush taking note to remove fine sediment on and around the back end of the Impeller, the small hole through the ceramic shaft and the chamber the Impeller fits into on the Pump Motor Body. (Always inspect the Impeller and replace the Impeller if it seems necessary.)
6. Ensure to replace the O'ring as shown above when reinstalling the Impeller. (See "IMPORTANT NOTES" section below for reassembly instructions)

SKIMMER & WATER FEATURE PUMPS

IMPORTANT NOTES

- It is important that this procedure is carried out regularly as the cooling path inside the motor can become clogged. If the impeller assembly becomes worn or damaged it should be replaced (available from your dealer). Failure to do so may cause serious damage to pump. Inspect for signs for wear and tear. The impeller set is a wearable part.
- Once the cleaning and inspection process is completed, reassemble in the reverse manner. Reinstall the impeller into the motor body.

To place the Impeller O'ring around the black disc successfully, firmly hold the disc with one hand, and using the other hand stretch the O'ring over the disc, positioning it carefully into the groove. Pay attention not to allow the O'ring to roll forward, in-between the black disc and the Pump Motor Body.

With the impeller in the correct position, carefully place the Impeller Cover Housing on, and then rotate clockwise back into position.

- Now reattach Front Filter Screen to the pump, by rotating clockwise.
- Now re-attach the Base Plate into position to lock the impeller cover from turning.

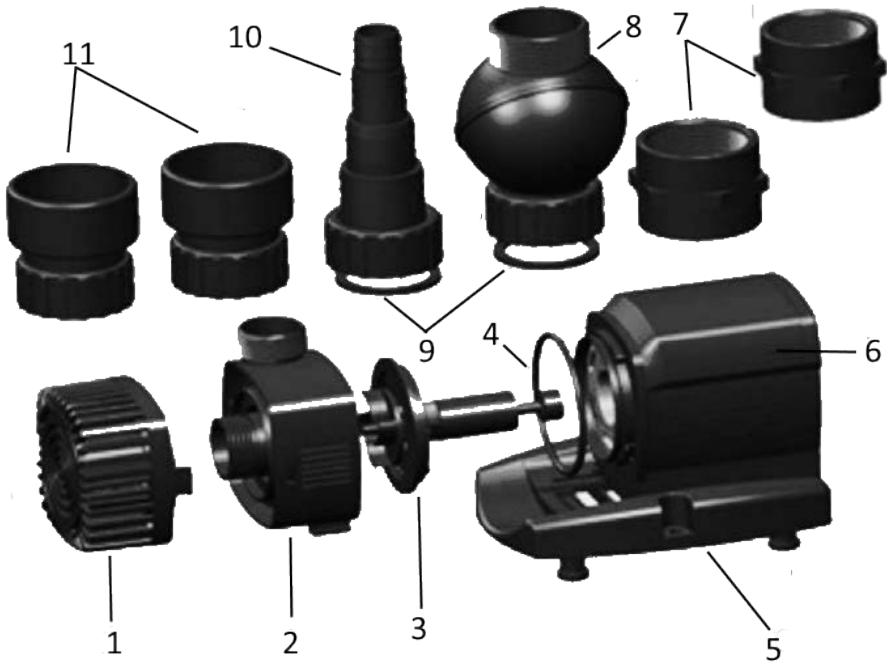


EXPLODED VIEW

- | | |
|----|---|
| 1 | Front Filter Screen (EV1800) (EV2400-EV3600) |
| 2 | Impeller Cover Housing |
| 3 | Impeller Assembly |
| 4 | Impeller O-Ring |
| 5 | Base Plate with Rubber Feet |
| 6 | Pump Motor Body |
| 7 | 1-1/2" Coupling Fitting X2- for Inlet & Outlet |
| 8 | Swivel Ball Joint Fitting |
| 9 | Washers - for Locking Nuts (Red) |
| 10 | 3/4", 1", 1-1/4" & 1-1/2" Barbed Hose Tail with Locking Nut |
| 11 | SCH. 40 Adapter with Locking Nut- 1 1/2" Slip X2 |



NOTE: Parts and features differ from model to model. All images used are for illustrative purposes only. Not all features depicted apply to all models in the range and these are subject to change.



IMPORTANT

These accessories and attachments are recommended for use with your PondMAX product specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use the accessory or attachment for its stated purpose.

SKIMMER & WATER FEATURE PUMPS

SPARE PARTS

PART NO.	DESCRIPTION	EV1800	EV2400	EV3000	EV3600
1	Front Filter Screen	31EV202	31EV227		
2	Impeller Cover Housing	31EV201	31EV226		
3	Impeller Assembly	31EV200	31EV225	31EV250	31EV275
4	Impeller O'ring				
5	Base Plate with Rubber Feet	31EV204	31EV228		
6	Pump Motor Body				
7	1" x 1-1/2" Coupling Fitting x 2 - for inlet & outlet				
8	Swivel Ball Joint Fitting				
9	Washer - for Locking Nut (Red)				
10	3/4", 1", 1-1/4" & 1-1/2" Barbed Hosetail with Locking Nut				
11	SCH. 40 Adapter with Locking Nut- 1 1/2" Slip				
7, 8, 9, 10,11	Complete Kit EV1800-EV3600 - Coupling Fitting x2, SCH. 40 Adapter x2, Washer (Red) & Barbed Hosetail with Locking Nut.	31EV203			

TROUBLESHOOTING

Problem	Reason	Solution
WATER PUMP NOT WORKING	No Power	Check that the plug is connected and power point turned on.
	Filter Screen blocked with sludge.	Clean the Filter Screen.
	Impeller is blocked with sludge or lime scale build up.	Clean the Impeller as per the instructions.
	Running without sufficient water.	Submerge the equipment underwater then plug in. Refill if necessary.
	Blocked Impeller chamber or ceramic shaft is broken.	Clean the Impeller. Check for wear. Replace if necessary.
WATER PUMP IS NOISY	Blockage in pump.	Clear the blockage.
	Impeller & Shaft worn out.	Replace Impeller Assembly.
	Impeller broken.	Replace Impeller Assembly.
	Water level in feature is too low.	Refill feature with water to appropriate height.
	Unit inlet is blocked or the water pump outlet is blocked.	Clear all blockages.
	The height to which you are pumping is too high for the given model of pump.	Select a bigger model.

SKIMMER & WATER FEATURE PUMPS

LIMITED WARRANTY

- This product is warranted to the initial purchaser to be free of defects in materials and workmanship at the time of initial purchase and for a period of 3 years for PondMAX™ Skimmer & Water Feature Pump Pumps. Some parts are consumable and may need to be replaced as part of ongoing product maintenance and are not covered entirely by this Warranty. The impeller assembly is a consumable part and has a 1-year warranty. In the event this product malfunctions within 3 years from the date of purchase, the sole obligation of PondMAX™ International (hereinafter referred to as PondMAX™) will be to repair the unit or replace with an equivalent new or factory refurbished unit at PondMAX's discretion, subject to the following condition:
 - The malfunction is proved attributable to a defect in materials or workmanship, including repairs performed under this warranty. Malfunction for any other reason—including but not limited to misuse, negligence, accident, or tampering with parts, incorrect wiring, or improper installation—will not be remedied under this warranty.
 - PondMAX™ specifically does not guarantee chemical compatibility, and expressly does not warrant units from any problems caused by chemical attack or failure due to incompatibility of fluid being circulated by pump.
 - All warranty repairs must be performed by PondMAX™ or a PondMAX™ authorized company.
 - Purchaser must retain the purchase receipt and present it with this certificate as proof of ownership and entitlement to warranty repairs. Unauthorized repairs will not be compensated by PondMAX™, and are not the responsibility of PondMAX™, and if such repairs damage the product, such damages are not remedied under this warranty.
 - Purchaser shall bear all shipping, packing and insurance costs and all other costs, excluding labor and parts necessary to effectuate repairs under this warranty.
 - This warranty is in lieu of all other express warranties which now or hereafter might otherwise arise with respect to this product. Any and all limited warranties, including the warranties of merchantability and fitness for particular purpose, shall have no greater duration than the duration period of the express written warranty applicable to this product, and shall terminate automatically the expiration of such duration period.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. No action shall be brought for breach of any implied or express warranty after one year subsequent to the expiration of the duration period of the express written warranty.

- Incidental and consequential damages caused by malfunction, defect, or otherwise, and with respect to breach of any express or implied warranty, are not the responsibility of PondMAX™, and, to the extent permitted by law, are hereby excluded for property damage, loss of livestock and, to the extent not unconscionable, for personal injury damage. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
- This warranty does not apply to any malfunction arising out of any application of this product other than normal use, unless such application is upon request specifically approved in writing by PondMAX™.
- The provisions of this warranty are severable and if any provision shall be deemed invalid, the remaining provisions shall remain in full force and effect.
- Rights under this warranty are not assignable without the express prior consent in writing by PondMAX™ and, regardless of the terms of such consent in writing, such assignee shall have no greater rights than his assignor had against PondMAX™.

Please consult your retailer for quality original PondMAX replacement parts.
Visit www.pondmax.com for your nearest dealer.

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