

SELF PRIMING EXTERNAL PUMPS



Installation and Service Manual

for EXP3700, EXP4900, EXP6800, EXP7800, EXP6300HP, EXP9300HP

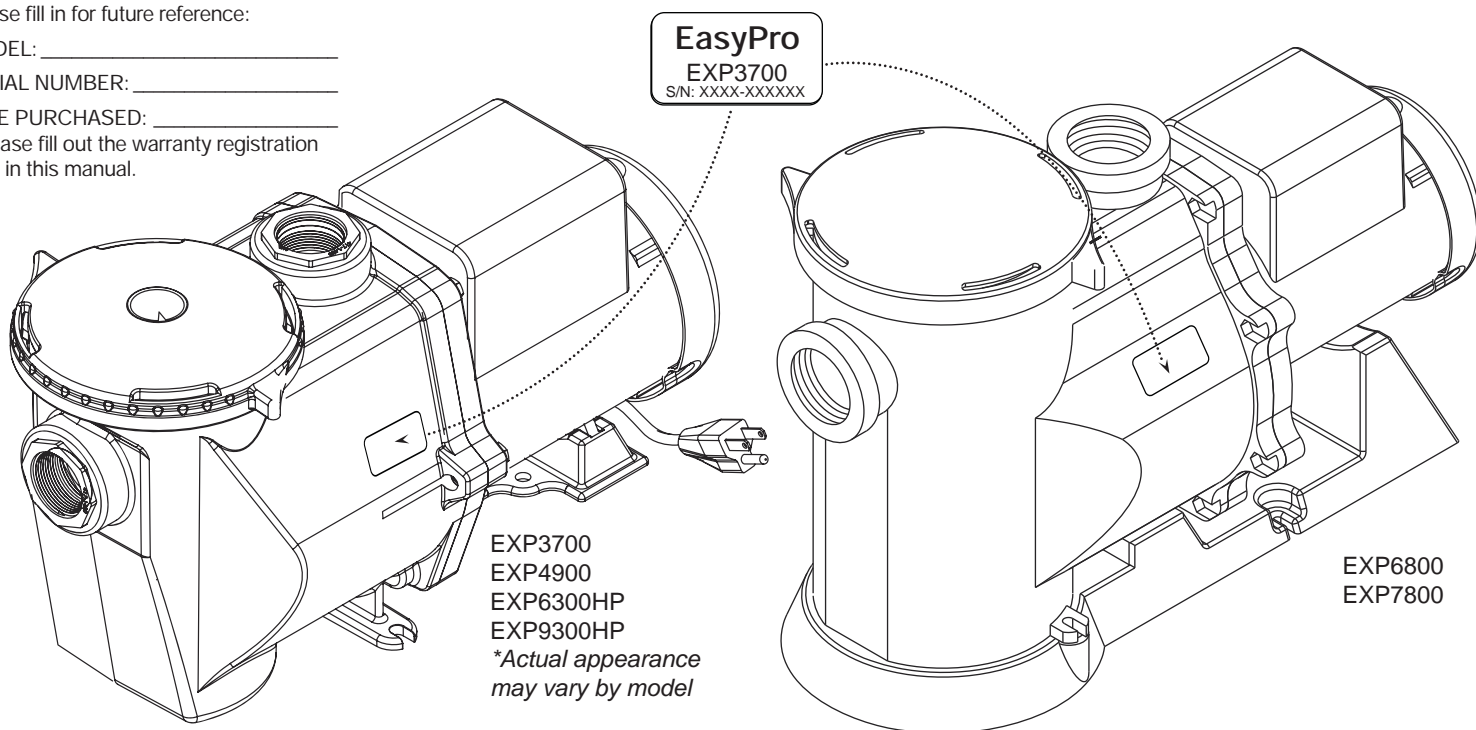
Please fill in for future reference:

MODEL: _____

SERIAL NUMBER: _____

DATE PURCHASED: _____

* Please fill out the warranty registration card in this manual.



TYPE: SELF PRIMING CENTRIFUGAL
MOTOR: NEMA 56Y
HORSEPOWER: 1/2 (1750 RPM) 2 (3450 RPM)
MATERIAL: GLASS-FILLED POLYPROPYLENE
HARDWARE: STAINLESS STEEL HARDWARE

OPTIONS: SALTWATER SERVICE
ACCESSORIES: SWING CHECK VALVES (1 1/2", 2", 3")

Model	EXP3700	EXP4900	EXP6800	EXP7800	EXP6300HP	EXP9300HP
INLET	2"	2"	2"	2"	2"	2"
DISCHARGE	2"	2"	2"	2"	2"	2"
MAX FLOW (gph)	3700	4900	6800	7800	6300	9300
MAX HEAD (feet)	21'	21'	19'	24'	77'	83'
MAX POWER (watts)	228	310	369	504	1496	2222
MAX CURRENT (amps)	2.76 @ 115v	3.37 @ 115v	3.93 @ 115v	5.02 @ 115v	8.7 @ 230v	11.4 @ 230v
VOLTS	115/230	115/230	115/230	115/230	115/230	115/230
MOTOR HP	1/2	1/2	1/2	1/2	2	2
MOTOR TYPE	56Y	56Y	56Y	56Y	56Y	56Y
MOTOR ENCLOSURE	TEFC	TEFC	TEFC	TEFC	ODP	ODP

WARNING: Please read completely before you install or operate your new pump! This is an external "out-of-pond" pump! It is NOT submersible! Do NOT allow this pump to become submerged! Never run dry!



Reliability You Can Count On!

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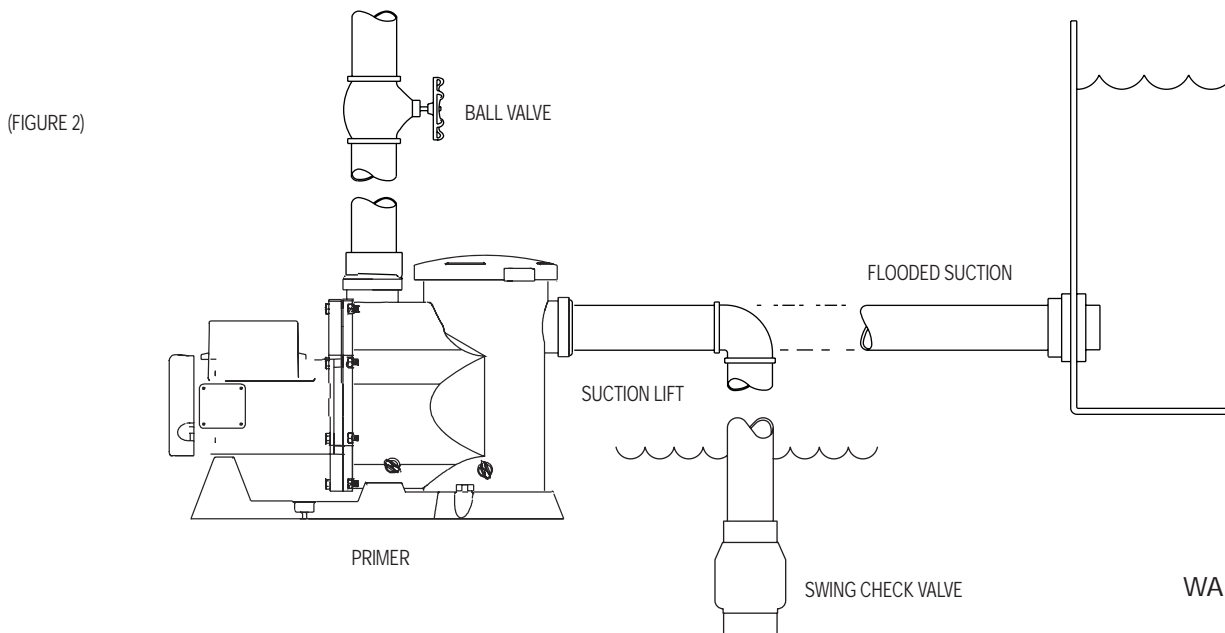
SELF PRIMING EXTERNAL PUMPS

We congratulate you on your choice of the EXP Self Priming Pump! It has been carefully designed using the advantages of today's technology and carefully constructed to give you the dependability of yesterday. To insure proper performance, we urge you to carefully follow the instructions in this manual. If you have any questions, call your nearest distributor or EasyPro for assistance.

INSTALLATION

Please read carefully! When properly installed this primer pump will provide dependable trouble-free service.

1. Locate pump as near the source to be pumped as possible. A flooded suction situation is preferred. This pump is self-priming, however, there must be fluid in the pump for it to function properly. A check valve is recommended for non-flooded suction. (Figure 2)
2. Mount motor base to a secure, immobile foundation.
3. Use only plastic fittings on both the intake and discharge ports. Seal pipe connections with Teflon™ paste. These fittings should be self-supported and in neutral alignment with each port. (i.e. Fittings must not be forced into alignment which may cause premature line failure or damage to the pump volute.)
4. Never restrict the intake. Keep both input and discharge lines as free of elbows and valves as possible. Always use pipe of adequate diameter. This will reduce friction losses and maximize output.
5. This pump must not be run dry! We recommend a flooded suction installation. Please read carefully! When properly installed, the EasyPro pump will provide dependable, trouble-free service.
6. Before starting pump, the priming pot **must be filled with water**.



WARNING: ALWAYS SHUT OFF ELECTRICAL POWER BEFORE INSTALLATION AND / OR SERVICING THIS PUMP! ALL ELECTRICAL WIRING SHOULD MEET STATE AND LOCAL ORDINANCES. IMPROPER WIRING MAY NOT ONLY BE A SAFETY HAZARD BUT MAY PERMANENTLY DAMAGE THE MOTOR AND/OR PUMP!

ELECTRICAL HOOK-UP

1. Check that supply voltages match the motor's requirements.
2. Check motor wiring and connect, according to instructions on motor, to match supply voltage.
3. Power cord should be protected by conduit or by cable and be of proper gauge. It should be no longer than necessary.
4. Power should be drawn directly from a box with circuit breaker protection or with a fused disconnect switch.



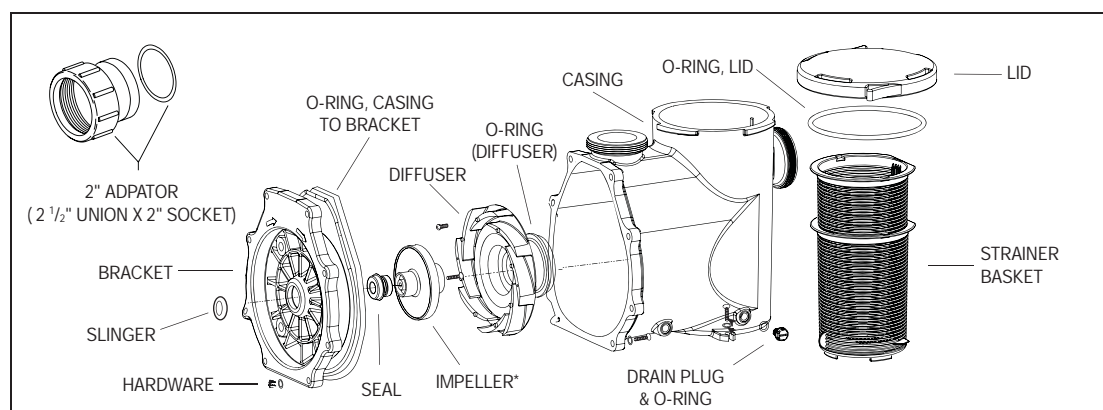
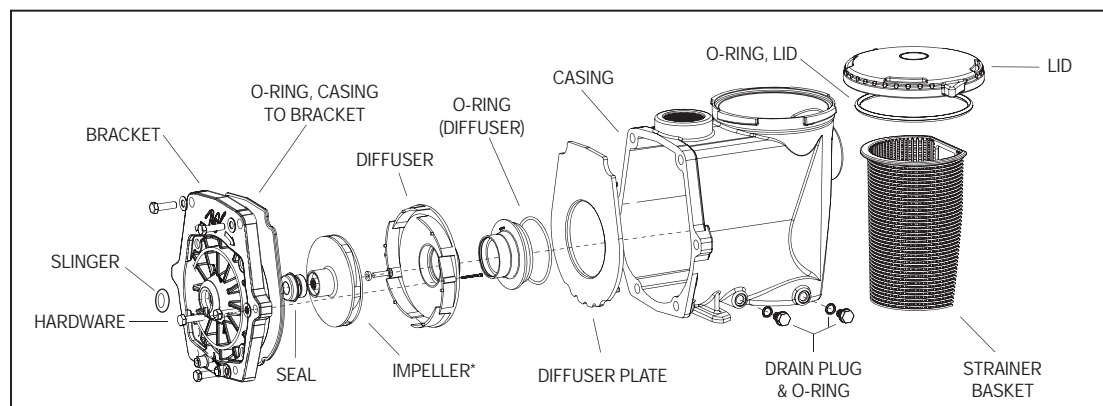
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SELF PRIMING EXTERNAL PUMPS

PUMP END ASSEMBLY

1. Clean and inspect all pump parts (O-ring, seal seats, motor shaft, etc.).
2. If replacing the seal, apply sealant in bracket bore hole and around seal case according to sealant instructions. We recommend using Gasgacinch®. Silicone sealant can also be used.
3. Press seal into bracket while taking care not to damage seal face.
4. Place slinger (rubber washer) over motor shaft and mount bracket to motor.
5. If replacing the seal, carefully lubricate the boot around ceramic piece and press it into the impeller hub making certain that the ceramic is in evenly - the sealing surface should be parallel with the impeller hub.
6. Apply clean water to the carbon-graphite and seal seat sealing surfaces. Do not use silicon lubricants or grease!
7. Mount bracket to motor face.
8. Thread impeller onto shaft and install o-ring and screw! If required, remove motor end-cap and use a screwdriver on the back of motor shaft to prevent shaft rotation while tightening. Replace motor end cap.
9. Place diffuser over impeller and tighten allen bolts used to hold diffuser in place. Note: Be sure diffuser is in an upright position. (The word "top" appears on the diffuser as an indicator).
10. Seat O-ring on diffuser. Assemble diffuser to bracket with two allen screws.
11. Seat O-ring in bracket slot and assemble casing to bracket.
12. Install drain plugs with its O-rings in casing drain holes.



DESCRIPTION	P/N
SEAL	1000.0414
IMPELLER *DEPENDS ON MODEL	CONSULT FACTORY
O-RING, CASING TO BRACKET	8000.061
CASING	8000.070
DRAIN PLUG	1000.110
O-RING, DRAIN PLUG	805-0112
DIFFUSER	8000.120
O-RING, DIFFUSER	8000.121
LID	9000.779
HARDWARE KIT	8000.502
SLINGER	1000.010V
BRACKET	8000.030
O-RING, LID	8000.777
STRAINER BASKET	8000.778
DIFFUSER PLATE	8000.141
ADAPTER, UNION X 2" SLIP	8000.780

DESCRIPTION	P/N
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O-RING, CASING TO BRACKET	9000.061
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DIFFUSER	9000.120
O-RING, DIFFUSER	9000.121
LID	9000.779
HARDWARE KIT	9000.502
SLINGER	1000.010V
BRACKET	9000.030
O-RING, LID	9000.777
STRAINER BASKET	9000.778
2" ADAPTOR (2 1/2" UNION X 2" SOCKET)	9000.070-2

DISASSEMBLY

1. Shut off power to motor before disconnecting any electrical wiring.
2. Close all necessary valves on inlet and discharge lines and drain the pump by removing both drain plugs. The water will drain faster if you loosen the lid.
3. Disassemble bracket-motor assembly from casing by removing the nuts and bolts. (The casing may be left in-line)
4. Unscrew the two allen bolts and remove diffuser. Diffuser may need to be pried off with a flathead screwdriver.
5. Remove screw and O-ring from front side of impeller. Screw is a left-handed thread and loosens in a clockwise direction.
6. Remove cap covering shaft at back of motor. Unscrew the impeller by twisting counter clockwise while holding the shaft with a large screwdriver to prevent shaft rotation.
7. Remove ceramic piece from impeller (if replacing the seal).
8. Detach bracket from motor. Remove seal from bracket by pressing out from the back (if replacing the seal). Do not dig out from the front!



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MAINTENANCE

Lubrication

Motor - Permanently Lubricated ball bearings - no service required.

Rotary Seal - Requires no lubrication after assembly.

**The pump must be drained before servicing or if stored below freezing temperatures. Periodic replacement of seals may be required due to normal carbon wear.*

Symptom	Problem	Resolution
No Flow	Insufficient Prime	Prime system with water and purge all air from suction piping. Install check valve.
	Insufficient Power	Verify power supply and connection from panel to pump. Verify proper voltage. Some models are dual voltage (115/230).
		Ensure valves are open.
	Flow Restriction	Ensure plumbing is clear, including suction strainers, check valves, etc. Verify check valve orientation and direction of permitted flow. Clean out leaves or other debris from basket strainer (if applicable).
		Air leak
		Fix air leaks at fittings, connections, strainer basket etc. This typically occurs on the intake side.
	System Incompatibility	Verify hydraulic compatibility: i.e. pump & pipe are sized for the system.
Low Flow	Air leak	Fix air leaks at fittings, connections, strainer basket etc. This typically occurs on the intake side.
	System Incompatibility	Verify hydraulic compatibility: i.e. pump & pipe are sized for the system.
	Insufficient Power	Verify power supply and connection from panel to pump. Verify proper voltage. Some models are dual voltage (115/230).
		Ensure valves are open.
	Flow Restriction	Ensure plumbing is clear, including suction strainers, check valves, etc. Clean out leaves or other debris from basket strainer (if applicable).
		Insufficient Prime
		Prime system with water and purge all air from suction piping.
	Cavitation	Verify airtight plumbing on the suction plumbing especially fittings! Clean out leaves or other debris from basket strainer (if applicable). Increase pipe size where possible.
		Decrease suction pipe length, reduce the number of elbows, etc.
		Verify hydraulic compatibility: i.e. pump and pipe are sized for the system.
Sporadic Operation	Insufficient Power	Verify power supply and connection from panel to pump. Verify proper voltage. Some models are dual voltage (115/230).
	Poor Ventilation	Ensure adequate airflow over motor to prevent overheating.
Excessive Noise	Cavitation	Verify airtight plumbing on the suction plumbing especially fittings! Clean out leaves or other debris from basket strainer (if applicable). Increase pipe size where possible. Decrease suction pipe length, reduce the number of elbows, etc.
		Verify hydraulic compatibility: i.e. pump and pipe are sized for the system.
	Insufficient Power	Verify power supply and connection from panel to pump. Verify proper voltage. Some models are dual voltage (115/230).
		Ensure valves are open.
	Flow Restriction	Ensure plumbing is clear, including suction strainers, check valves, etc. Verify check valve orientation and direction of permitted flow.

EASYPRO 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 three years. In the event this product malfunctions within three years from the date of purchase, the sole obligation of EasyPro, Incorporated (hereinafter referred to as EP) will be to repair the unit or replace with an equivalent new or factory refurbished unit at EP's discretion, subject to the following conditions:

1. You MUST call EP for a return authorization (RA#) number prior to returning. Pumps returned without an RA# will be refused.
2. 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, tampering with parts, incorrect wiring, improper installation — will not be remedied under this warranty.
3. EP 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 pumped with pump materials of construction.
4. All warranty repairs must be performed by EP or an EP 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 EP, are not the responsibility of EP, and if such repairs damage the product, such damages are not remedied under this warranty.
5. Purchaser shall bear all shipping, packing and insurance costs and all other costs, excluding labor and parts necessary to effectuate repairs under this warranty.

6. Periodic check-ups are not covered by this warranty.

7. 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.

8. 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 EP and, to the extent permitted by law, are hereby excluded both for property damage 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.

9. 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 EP.

10. 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.

11. Rights under this warranty are not assignable without the express prior consent in writing by EP and, regardless of the terms of such consent in writing, such assignee shall have no greater rights than his assignor had against EP.

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Model: _____ Serial Number: _____
Date purchased: _____ Where purchased: _____



EasyPro Pond Products
4385 East 110th, Grant, MI 49327
800-448-3873 • 231-834-5537 fax
www.EasyProPondProducts.com

Activate your warranty by filling out this form and mailing to EasyPro Pond Products



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Gasgacinch® is a registered trademark of Porter Manufacturing. Noryl® is a registered trademark of the General Electric Company. Teflon® is a registered trademark of DuPont Company.

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