

Owners Manual LLP1120 & LLP1240

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Kasco Marine, Inc. 800 Deere Rd. Prescott, WI 54021 PH (715) 262-4488 FAX (715) 262-4487



Dear Lake Life Pump Owner,

Congratulations on your purchase of a Lake Life Pump!

I am confident you will find it is one of the best lake and pond management tools you will ever enjoy for healthier lakes and ponds, healthier fish populations, and of course, for protection from the dreaded fish kills experienced by small water owners and managers across the country each year.

It was that phenomenon that inspired me to invent the Lake Life Pump some 35 years ago after I experienced a devastating fish kill on my own trophy bass lake. Everything was wiped out from oxygen depletion caused by thermal stratification. I vowed it would never happen again and set out to develop a pump that would basically mix large volumes of water so that oxygen levels would be adequate throughout my private lake.

I finally built a workable device and an interesting thing happened. Not only did the pump prevent thermal and chemical stratification and the accompanying danger of a fish kill, it greatly enhanced the entire lake habitat and improved the quality of my bass and bream. Plus, it increased usable fishing waters. Like a heart, it provided life-giving oxygen throughout the body of my lake.

I improved my invention over the years, and both fishery biologists and professional lake managers told me it was the best lake aeration system they had every seen. That's when I decided to apply for a patent and look for the very best manufacturer who could take my Lake Life Pump and make it available to anyone interested in quality lake management.

I finally found Kasco Marine, Inc. in Prescott, Wisconsin. They took over my pump, refined it, and tested it to make sure it would perform just as promised. I am happy to say the Lake Life Pump is totally manufactured on American soil with pride and precision.

I wish you many years of improved water quality and fishing on your treasured lake or pond. Remember, Kasco Marine stands behind every unit.

Sincerely,

Ray Scott

Founder of BASS

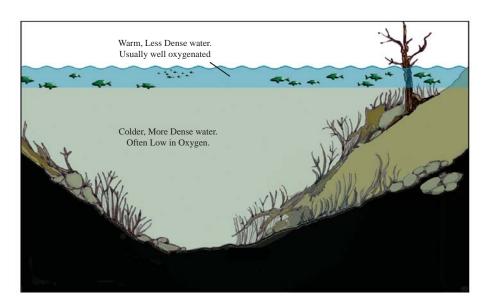
Important Installation Warning

Thermal stratification refers to the layering that can occur in some lakes which allows warmer (less dense) water to sit on the top of colder denser water on the lake bottom. The Lake Life Pump has been designed to keep thermal stratification from occurring in the first place. In the event that you install your unit into a body of water that is extremely stratified, caution should be used as you start up the unit. In some cases the colder water sitting on the bottom could be holding gases that if totally mixed within the water column could be harmful to fish. There could also be concern that the colder water has little or no dissolved oxygen.

I suppose you are asking yourself "what does this mean by extremely stratified and how do I measure it?" A simple method of testing for thermal stratification is to drop a thermometer into the body of water and slowly check for temperature change from the surface to the depths of the lakes. Our suggestion would be to measure temperature every two feet. Be sure to keep the thermometer at a given depth long enough for the correct temperature to be measured and then bring it to the surface fast and read it immediately.

If the colder water (4 degrees F colder than the surface water) represents more than 30% of the overall water volume, a timer is suggested to allow the unit to mix the water at a slower pace. The timer should be used in conjunction with measuring temperature. As the water temperature increases into the depths of the lake you can slowly keep the unit on for longer periods of time. Suggested start up on time for the unit for a stratified lake might be initially 8 hours for a week or so and gradually stop using the timer. Each lake will react slightly different to our unit so a precise timeframe is difficult to predict. Also keep in mind that the Lake Life Pump is not very effective at getting to depths of greater than approximately 15' because it is a passive water mover and is starting from the water surface.

If you are at all uncertain about this procedure, contact the distributor you purchased the unit from or e-mail us at sales@kascomarine.com



Safety & Handling Instructions

Please read and follow these extremely important safety and handling instructions for your Kasco equipment. Following these instructions will help ensure your safety and the quality performance of your equipment.

- Under NO circumstances should anyone enter the water with the electrical equipment plugged in and/or in operation. It is NEVER recommended to enter the water with the equipment in operation.
- KEEP OFF of the unit, do not climb up on the unit while it is in the water. DO NOT Swim underneath the unit.
- Caution should be used when dealing with any electrical equipment with moving parts.
- NEVER run the unit out of water. It could create a dangerous situation for the operator.
- Extreme caution should be used around water, especially cold water, such as in Spring, Fall, and Winter, which poses a hazard in and of itself.
- NEVER lift or drag the unit by the power cord. If you need to pull the unit to the side of the pond, use the anchoring ropes.
- Do not use waders in deep ponds/lakes or ponds/lakes with drop-offs, drastic slopes, or soft bottom material.
- Do not use boats that tip easily for unit installation, such as a canoe, and follow all boating safety rules and regulations, including wearing a PFD. (Personal Flotation Device)
- The Lake Life Pump must be connected to a Ground Fault Circuit Interrupter (GFCI) with Class A, human rated protection only. Failure to install a Class A GFCI device may create a dangerous installation and possible damage to the Lake Life Pump

motor.

• Any GFCI outlet or load center must be installed a minimum of 5ft(3m in Canada) from the inside wall of the pond, unless separated from the body of water by a fence wall, or other permanent barrier that will make the unit inaccessible to persons in the water.

General Owner's Instructions

INSPECT THE SHIPMENT

Immediately inspect your Kasco Lake Life Pump shipment for any visible damages. Also cross reference the parts supplied with the Parts Included sheet to check for shortages. Shortages should be reported immediately to your Kasco Marine distributor or representative and damages reported to your carrier and Kasco Marine.

CAUTION

WARNING: Under NO circumstances should anyone enter the water with the unit in operation. Always operate the unit in the water and keep people and objects clear of the propeller. Do not lift or pull the unit by the electrical cord. Always use extreme caution around electrical equipment and water situations.

USE AND OPERATION

- The Lake Life Pump is designed and engineered for continuous duty, or on-demand use, as needed.
- During flotation operation, the water is pulled from 360 degrees around the unit.
 The water is forced downward mixing the body of water
- Your Lake Life Pump is ready for immediate use (after installation). No further lubrication is needed on the motor. Make sure to keep the motor housing clean from hard water deposits and/or algae.

• It is extremely important that proper and sufficient voltage (120Vac or 208 - 240Vac) is supplied to the Lake Life Pump motor. The Lake Life Pump is to be plugged into a properly grounded GFCI receptacle. It is extremely important to test your GFI device upon each installation and reinstallation and every month thereafter to ensure proper operation.

Unit Specs

Model	Voltage	Operating
		Amps
LLP1120	120	11
LLP1240	240	5.5

Model	Cord Length	Voltage	Cord gauge
LLP1120	100	120	12
LLP1120	150	120	10
LLP1240	100	240	14
LLP1240	150	240	12
LLP1240	200	240	12
LLP1240	250	240	12
LLP1240	300	240	12
LLP1240	400	240	12

Tools & Parts

Required Tools:



14" CRESCENT WRENCH





1/8" ALLEN WRENCH

Optional tools:

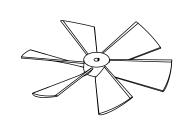




SOCKET WRENCH

1-7/16" HEX SOCKET

Customer Installed Parts





ROPES (3)





KEY (1)







SET SCREWS (2)



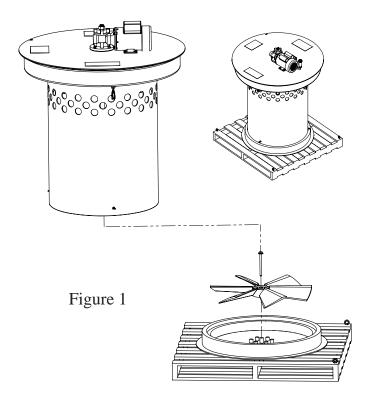
COTTER PIN (1)



ANCHORS (6)

(CUSTOMER SUPPLIED) 3 anchors 10-15 lbs. 3 anchors 20-25 lbs.

Unpacking Diagram



The Lake Life Pump will arrive strapped to a shipping pallet as shown above.

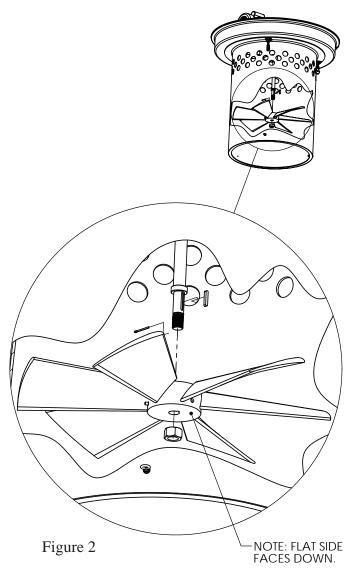
Steps:

- Cut the straps that are holding the Lake Life Pump body to the shipping pallet
- Lift the body off of the pallet and rest gently on its side. (Do not keep the unit on its side for an extended amount of time, only as long as it takes to complete this quick assembly) Remove the 4 parts (key, cotter pin, 2 set screws) that are taped to the bottom of the shaft and keep them handy for the prop assembly.
- Unscrew 1/2" lag screw that is holding the prop fixture in place. Lift up the prop fixture and remove the prop from the pallet. You should now have all the parts needed for the assembly.
- Remove any Bubble wrap or packing material from the prop and float
- We recommend keeping the shipping pallet for winter storage of your Lake Life Pump.

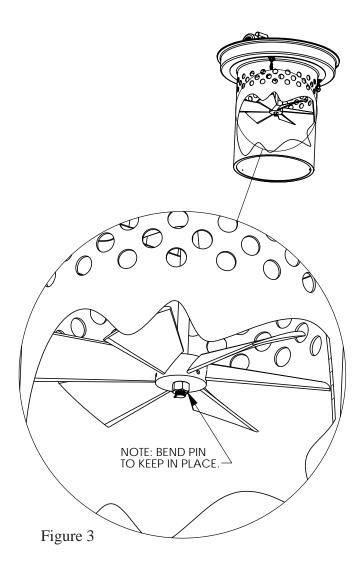
Assembly Instructions

Steps:

- Lay unit on its side and insert key into shaft.
- Slide propeller onto shaft with the flat side facing the bottom of the unit.
- Securely tighten the locknut against the propeller.
- Insert cotter pin into hole in shaft and bend pin to keep it in place.
- Securely tighten the two propeller set screws against the drive shaft.
- Return unit to upright position.



Completed Assembly

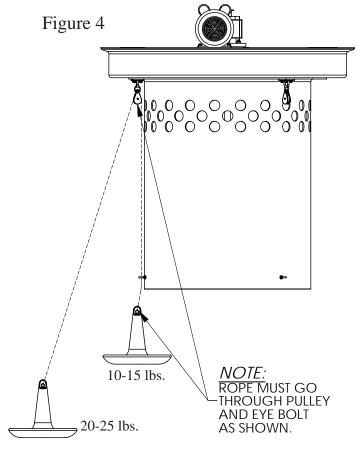


Installation Instructions

Steps:

- Each Lake Life pump comes with a watertight Quick Disconnect and the power cord shipped separately. It should now be attached to the stub cord by lining up the male and female halves of the disconnect and hand tightening the blue collar. The Additional Strain Relief should be attached to the pulley block.
- Thread a supplied rope through one of the three pulleys located on the Lake Life Pump and also thread through the eyebolt near the bottom of the unit directly be-

low the pulley. Attach one of the anchors weighing 10-15 lbs. to the side of the rope that was threaded through the eyebolt. Attach one of the anchors weighing 20-25 lbs. to the other side of the rope. Repeat with the other 2 ropes and pulleys. See Figure 4 for details. This anchoring method allows for natural fluctuations in water level and will keep the unit stable in choppy water.



• Using a boat or other means, position the Lake Life Pump in the water. The power cord should drop straight to the bottom and then run up to the shore. The three anchors that go to the bottom of the pond should not be dropped straight down by the unit, but should be placed away from the Lake Life Pump. The three anchors that hang close to the Lake Life pump should hang roughly 1 to 3 feet below the bottom of the Lake Life Pump. (refer to Figure 5 for proper installation of the Lake Life Pump).

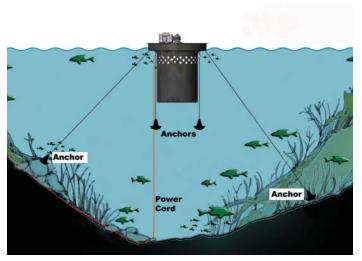


Figure 5

Electrical Guidelines

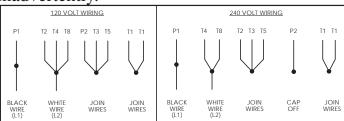
The electrical service for the Lake Life Pump is to be installed or modified by a qualified electrician or service person only.

Follow all National and Local Electric Code requirements.

Circuit requirements:

The Lake Life Pump must be connected to a Ground Fault Circuit Interrupter (GFCI) with Class A, human rated protection only. Failure to install a Class A GFCI device may create a dangerous installation and possible damage to the Lake Life Pump motor.

The Lake Life Pump is shipped pre-wired for 120Vac or 240Vac power. The motor can be rewired for either voltage if necessary. Caution should be taken if rewiring the motor as it is possible to reverse the direction of the motor inadvertently.



Internal motor wiring connections (pre-wired by Kasco Marine)

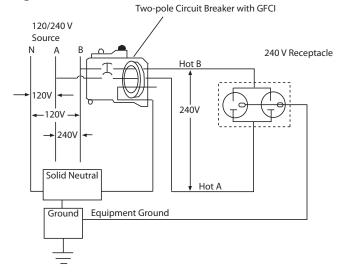
120Vac motor connection: Full Load Amps (FLA) = 11Amps.

Provide a 20amp circuit with Class A GFCI protection. This can be accomplished with a 20amp GFCI receptacle with an "in use" outdoor cover. It may be a requirement of local and national electrical codes to install a switch for disconnecting power to the Lake Life Pump instead of plugging and unplugging the power cord.

240Vac motor connection: Full Load Amps (FLA) = 5.5Amps.

Provide at minimum a 20amp 2 pole circuit breaker with Class A GFCI protection.

A NEMA 6-20 receptacle with an "in use" outdoor cover can be installed to connect the Lake Life Pump power cord to the electrical circuit. It may be a requirement of local and national electrical codes to install a switch for disconnecting power to the Lake Life Pump instead of plugging and unplugging the power cord. See typical circuit breaker installation diagram below.



For the 240V connection, a single circuit breaker load center can be purchased at a home improvement center. These load centers with GFCI circuit breakers are typically known as "spa" or "hot-tub" load centers.

For safe reliable operation, the GFCI device must be tested upon completion of the initial installation and then every 30 days. Refer to the documentation supplied with the GFCI device.

Any GFCI outlet or load center must be installed a minimum of 5ft(3m in Canada) from the inside wall of the pond, unless separated from the body of water by a fence, wall, or other permanent barrier that will make the unit inaccessible to persons in the water.

Maintenance Recommendations

** Under No Circumstances should anyone enter the water while a Unit is operating. **

** Please keep the original Packaging for maintenance shipping and storage **

The following maintenance procedures can be utilized to ensure many years of quality performance from your Kasco Lake Life Pump and reduce the need for more costly repair work.

PROPER INSTALLATION: Proper installation of Kasco equipment will include a power source with ground fault circuit interruption (GFCI). Ground fault circuit interrupters are a safety feature that can also alert you to electrical leaks in the equipment. It is extremely important to test the GFCI upon installation, each reinstallation, and monthly thereafter to ensure proper operation. If you have repeat, consistent trips on your ground fault, the equipment should be disconnected and removed from the water. The power cord should be inspected for damage and you should call Kasco Marine at 715-262-4488 for further instructions or email Kasco at service@kascomarine.com.

OBSERVATION: Operating equipment should be observed on a regular basis (daily, if possible) for any reduction or variation in performance. If a change in performance is observed, the equipment should be disconnected from power and inspected for any material that may have clogged the system or wrapped around the shaft of the prop, especially plastic bags and fishing line. Even though Kasco equipment is among the most clog-resistant on the market, it is impossible to protect against all items that can clog equipment and still maintain a flow of water. These materials can be very damaging to the equipment under continued operation and must be removed as soon as possible. ALWAYS UNPLUG THE UNIT BEFORE ATTEMPTING TO REMOVE CLOGS.

WINTER STORAGE: In regions where there is significant freezing in the wintertime, the Lake Life Pump should be removed from the water to protect them from the expansion pressure of the ice. Storage over winter is best in a location that is out of the sun and cool, but above 32°F. Use the original shipping pallet for storage. Store in the upright postition, and NEVER store the unit on its side. Storing the unit on its side may cause the body to deform and interfere with the prop.

CLEANING: The Lake Life Pump should be removed from the water at least once per year (at the end of the season in cold climates) to clean the exterior of the system. The motor housing is the surface that dissipates heat and any algae, calcium, etc. build-up will become an insulator that blocks heat transfer. In warmer regions it is recommended that the unit is removed and cleaned at least two to three times per year depending on conditions. In most cases a power washer will be sufficient if the unit and algae are still wet.

FASTENERS: When pulled for cleaning or winter storage, the fasteners that hold the motor and gear box to the float should be checked and retightened if loose.

Repair services should be performed by Kasco Marine or a Kasco trained Authorized Repair Center. Any alterations or changes made to Kasco units by an unauthorized source will void the warranty. This includes tampering with the unit and/or power cord. Please contact Kasco Marine, Inc. at 715-262-4488 for your nearest Authorized Repair Center.

Warranty & Return Policy

2 Year Limited Warranty: Kasco® Marine, Inc. warrants the Lake Life Pump to be free from defects in material or workmanship (except for the ropes and power cord) under normal use and service. The Kasco Marine, Inc. obligation under this warranty is limited to replacing or repairing free of charge any defective part within two (2) years from the date of shipment. Customer shall pay shipping charges for returning the unit to Kasco or an Authorized Repair Center.

THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND ANY OTHER OBLIGATION OR LIABILITY WHATEVER ON THE PART OF KASCO MARINE, INC. AND IN NO EVENT SHALL KASCO MARINE, INC. BE LIABLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES.

Warranty is void if:

- The Lake Life Pump is not maintained properly according to the Maintenance Recommendations supplied in this Owners Manual.
- The Lake Life Pump is returned for repair without the power cord or if the unit or power cord are altered in any way from original shipment. Cuts in the power cord are not covered under warranty.

The Lake Life Pump is damaged by unauthorized tampering.

Warranty Claim Procedure:

Check the serial number printed on the inside cover of the motor wiring box and determine the year of manufacture according to the serial number scheme below:

Sample Serial # 80 01 LP 1 1 1725

The first two digits represent the reverse of the last two digits of the year of manufacture.

Example: 80 = 2008 model year.

The third and fourth digits represent the week of the year. (Ex. "01" for 1st week in Jan.)

The best method for establishing warranty period is by the original receipt. Once the warranty coverage has been established, the unit may be sent to any Kasco Authorized Repair Center for evaluation and repair. Please call Kasco Marine at 715-262-4488 prior to shipping to receive a Return Authorization Number and/or Repair Form, then ship to:

Kasco Marine, Inc. 800 Deere Rd. Prescott, WI 54021 Attn: Repairs

Or call Kasco Marine at 715-262-4488 to locate your nearest Authorized Repair Center. You can also email Kasco at service@kascomarine.com.

Note: Only complete assemblies will be accepted for warranty repair. The power cord and all other components must be returned with the motor as originally assembled. Any missing parts will be replaced at the customer's expense and, if determined to have caused the failure, could void the entire warranty. Some parts are essential for structural support during shipping and others, such as the power cord, are essential to properly diag-

nose potential causes of failure.

Please include the Repair Form received from Kasco Marine or your local distributor with the shipment. If no Repair Form is available, include your name and physical address for return delivery of the repaired unit and a daytime phone number and/or e-mail address for correspondence regarding the warranty claim.

Any expedited shipping method for the return of the unit is at the customer's expense. Kasco Marine will return units repaired under warranty at our expense via ground freight within the continental United States.

Other Repairs:

Most failed equipment can be repaired at substantially lower costs than replacement with new. Please ship according to the instructions in the previous section. Again, it is best to call ahead for a Return Authorization Number and/or Repair Form so we know the repair is coming.

The request for estimates should be included in a letter that accompanies the returned unit and must include a daytime phone number and/or e-mail address. Estimate options are as follows:

We will contact the customer with a total after the unit has been evaluated, but before the work is performed.

We will repair the unit only if repair costs are under a stated dollar amount. Example: "Please repair if total is under \$150.00 before shipping charges."

All estimates that are rejected for repair will be destroyed unless otherwise directed by the customer. If the customer would like the unit returned, the unit will be restored as closely as possible to the condition in which it was received and shipped at the customer's expense for shipping and handling charges.

Billing:

All non-warranty repairs will be returned to the customer prepaid with Visa or Mastercard or shipped C.O.D. with C.O.D. charges unless otherwise directed. Kasco Marine will call for credit card information upon completion of the repair.

All other warranty and repair inquiries should be directed to Kasco Marine, Inc. at 715-262-4488 or returns@kascomarine.com.

Troubleshooting Tips

Below are some helpful troubleshooting tips. If a problem occurs, please double check the assembly and installation instructions as well as the instructions for the proper control panel. More troubleshooting tips can be found at www.kascomarine. com (under the technical tab) Contact Kasco Marine at 715-262-4488 for further diagnosis if these fail.

"My Lake Life Pump trips the ground fault interrupter"

This is the most common symptom of several possible problems. To correctly diagnose the problem, you will need to collect more information. A Ground Fault Interrupter (GFI) device that trips can indicate an electrical service problem, water contamination in the unit and/or cord, bad breaker, control box problems, motor problems, etc. Try to find out the answers to these questions before you contact Kasco to narrow down the problem.

- How long does it take to trip the breaker?
- Does it always take the same amount of time to trip?
- How many times has it tripped?
- Has there been any electrical problems in the area recently?

"My Lake Life Pump seems to run slowly."

The proper RPM of the prop is around 72 revolutions per minute. If the Lake Life Pump is running significantly slower, this can also be a symptom of several possible problems. There could be an electrical problem where the unit is

not getting the proper voltage. This could also indicate a problem with the motor of the unit, which needs to be looked at by an Authorized Repair Center. Check that the unit is receiving the proper voltage, and, if so, contact Kasco for further steps.

"My Unit turns itself off and back on without tripping the GFI breaker."

Each Kasco Lake Life Pump has a Thermal Overload built in that will turn the unit off when it overheats. Once the unit has cooled down, it will start back up. If you are noticing these symptoms, the unit should be unplugged immediately because the Thermal Overload will continue to turn on and off until it burns out and damages the motor. The unit should be unplugged and taken out of the water to find the cause of the problem. The problem could be one of many, such as, low water levels, build-up on the unit to prevent heat dissipation, something inhibiting the free rotation of the shaft, etc. If something is caught in the unit or there is a build-up of algae, calcium or organic matter on the unit, remove the debris and, if caught early enough, the unit should be fine. Contact a Kasco representative before re-starting the unit.

"My Lake Life Pump's flow seems to fluctuate and/or be less than usual."

This can occur because of a few different reasons. Most of the time, this symptom is caused from unit being clogged with debris. A mat of weeds, many leaves, plastic bags, etc. can clog up the unit and cause it to be starved of water. If the unit does not have the proper amount of water, the flow or pattern will fluctuate. If you are seeing these symptoms, unplug the unit and clean away the debris that is clogging up the intake area. Another possibility if these symptoms are noticed, is a chipped or damaged prop that is causing the unit to wobble and not pump properly. When the unit is unplugged, check the prop for damage and replace if damage is found. Also, check to see if the prop is rubbing against the housing.

"The prop is rubbing against the inside of the Lake Life Pump housing."

First, check to make sure the fasteners that hold the motor and gear box are tight and holding the motor securely to the float. Second, inspect the housing to see if it is deformed. If the Lake Life Pump was left on its side during storage or a hot, sunny day, the housing may deform.

"The Entire Lake Life pump spins at startup or during operation."

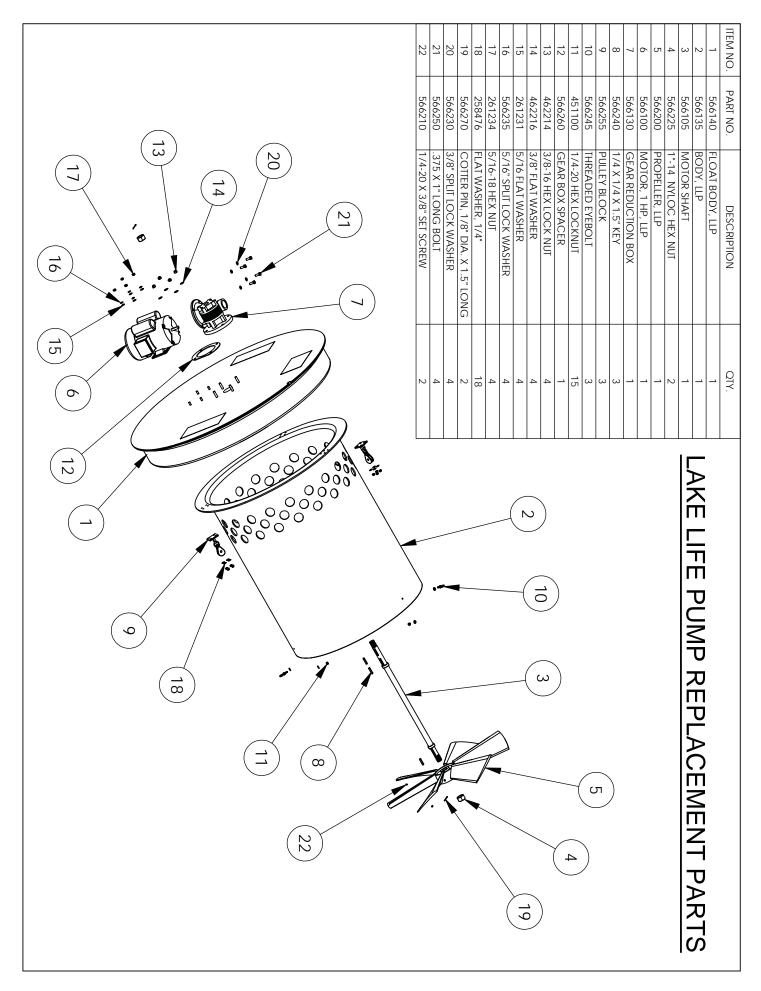
Check the anchors to make sure they are still attached to the ropes. Make sure you have the proper weight for the anchors and that they are set up correctly according to the installation instructions. Make sure the anchors that go to the bottom of the pond are dropped far enough away from the unit and are reaching the pond bottom and are not freely hanging from the Lake Life Pump.

"The Lake Life Pump does not float level."

Add additional weight or a heavier anchor to the pulley on the side opposite the motor.

"The GFI device trips randomly and sporadically. Sometimes it is a few hours of operation, other times it can be days or weeks."

This is referred to as a Nuisance Trip. This usually occurs where the unit is installed a great distance from the initial electric service on the property where the ground stake is placed. It is caused by either induced current in the ground wire or a base voltage difference due to soil pH levels. A possible resolution to the problem, contact an electrician and install a local grounding stake. This may eliminate the induced current and any base voltage differences.



Kasco Repair Sheet

800 Deere Rd. Prescott, WI 54021

Phone: 715-262-4488 - Fax: 715-262-4487 www.KascoMarine.com Sales@KascoMarine.com

Kasco Repair Sheet — Customer Info.

* Important Reminders *

All repairs sent in MUST be accompanied by a copy of this completed sheet!

Routine maintenance consists keeping the unit clean, keeping the stainless steel can clean, and having the seals and oil replaced every 3-5 years depending on use.

Address your Repair to Kasco Marine, Attn: Repairs (or to your Authorized Repair Center).

Shipping to Kasco or an Authorized Repair Center is paid for by the customer.

You must include the power cord and cage assembly with each unit sent in for repair to be considered for warranty repair!

Do not ship the float and/or control box with the unit for repair, unless otherwise instructed.

Today's Date:	
Customer Information	
Name:	Phone Number:
Address:	Alternate Number:
City:	Email Address:
State:	
Zip Code:	
Unit Information:	
Model # (Ex. LLP1120):	
Serial # (Ex. 8001LLP114025):	
Date Purchased:	
Purchased From:	
Earliest Date of Problem:	_
Description of Problem:	
Comments	

Warranty Registration Info

www.kascomarine.com (under the Technical Tab) Also, fill in the information below and keep for your records.
Model # (Ex. LLP1120)
Serial # (Ex. 8001LP110001)
Purchase Date:
Purchased From:
Registration Date:

Please register your Lake Life Pump online at



Kasco Marine, Inc. 800 Deere Rd. Prescott, WI 54021

Phone (715) 262-4488 • Fax (715) 262-4487

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