



BRINGING WATER TO LIFE

Masters® Series



60Hz 1-5HP Owner's Manual

Every **AquaMaster®** unit is fully inspected and produced in accordance with applicable standards for safety, and are listed by Underwriters Laboratories, Inc. (UL) for safety in the USA and Canada. **AquaMaster®** will continue to build the best units to assure you, the customer, of many years of enjoyable and reliable service. AquaMaster's commitment to excellence ensures superior aquatic management systems.

All **AquaMaster®** products are designed and built to be installed with an **AquaMaster®** UL Listed control panel and to be operated as a complete system. Any alterations to or substitution for items in this system, unless allowed by these installation instructions, will **void** the UL Listing and will void the product warranty. **It may also create a hazardous installation.** Read these instructions thoroughly before starting your installation and follow them carefully throughout.

WARNING

NOTICE: Save and pass the installation, anchoring and operating instructions to subsequent owners. The information provided is intended to notify and warn about making unsafe modifications, making unsafe repairs, or using unauthorized parts or repair facilities.

Improper installation, operation, service, repair, maintenance or alteration of this product may result in property damage or bodily injury.

Turn **OFF** electrical power at disconnect switch or service panel before servicing this unit or lighting system.

Risk of electric shock! This pump or lighting system has not been investigated for use in swimming pool or marine areas. **DO NOT use in swimming or marine areas.**

Only qualified personnel shall service and install **AquaMaster®** pumps or lighting systems. Installation and service to be in accordance with the National Electric Code and local codes and/or ordinances. This unit is intended to be operated only after it is properly installed, anchored and wired.

Risk of electrical shock! **DO NOT** operate this unit dry unless testing for proper rotational/mechanical function (see electrical connections, later in this manual). If this unit has been inadvertently operated out of the water, the unit must be serviced by a qualified person before being returned to service.

Risk of electric shock! This pump and lighting system is supplied with a grounding conductor. To reduce the risk of electric shock, be certain that it is connected only to a proper ground. Use a copper conductor of the correct size from the grounding terminal in the control box to a grounding connection in the service panel.

This pump and lighting fixtures are provided with flexible underwater cable and strain relief. **DO NOT** remove as electrical shock and/or damage to this unit or lighting system could occur.

Risk of electrical shock! **DO NOT** remove the wire harness from the pump housing or underwater disconnect. **DO NOT** connect conduit to pump.

This unit and lighting system is intended for water use only. **DO NOT** operate out of the water unless checking for proper mechanical/electrical function.

This lighting system is intended to be used with the **AquaMaster®** floating fountain or aeration systems only. **DO NOT** use this fixture in any other manner.

Risk of electrical shock! Submerge lighting fixtures before turning on.

This pump and lighting fixtures are for fresh water only.

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SHIPPING CLAIMS

When you receive your **AquaMaster®** unit, examine the package for any signs of external damage it may have sustained enroute. If there is apparent damage either outside the box or to its contents, make a claim with the shipper immediately. Save the original shipping carton and the packing material if a claim is to be filed.

Pictures and images used in this manual are for representational purposes only, may not depict the actual product.

MASTERS SERIES® 1 – 5HP ASSEMBLY INSTRUCTIONS

WARNING: Read these instructions carefully. Failure to follow these instructions could cause a malfunction of the system. Improper installation, wiring or anchoring could result in property damage or bodily injury.

This unit has been shipped partially assembled to avoid damage during shipment. Please refer to enclosed drawings for part locations.

1. Carefully unpack your unit and inspect for damage.
2. To begin assembly, stand your power unit (#7) upright on a flat level surface. Remove the plastic parts bag from the black nylon impeller housing. This parts bag contains the float tube bolts, O-ring, washers and silicone grease.
3. Install O-ring (provided) in the lower groove of the float tube. Apply a thin coat of silicone grease to the O-ring, float tube and impeller housing to allow for easier installation.
4. Lift float assembly (#1) and insert float tube into impeller housing (#2) making sure to align holes in the impeller housing with the holes in float tube.
5. Secure the float assembly to the impeller housing as follows: (4) Heavy Washers, (4) Lock Washers and (4) Hex Head Screws
6. With notches in the screen facing housing band clamp (#5), wrap the screen around lower neck of float and insert into outer groove of housing band clamp (#5). Fasten with (2) 1/4-20 stainless steel bolts, flat and lock washers and nut.

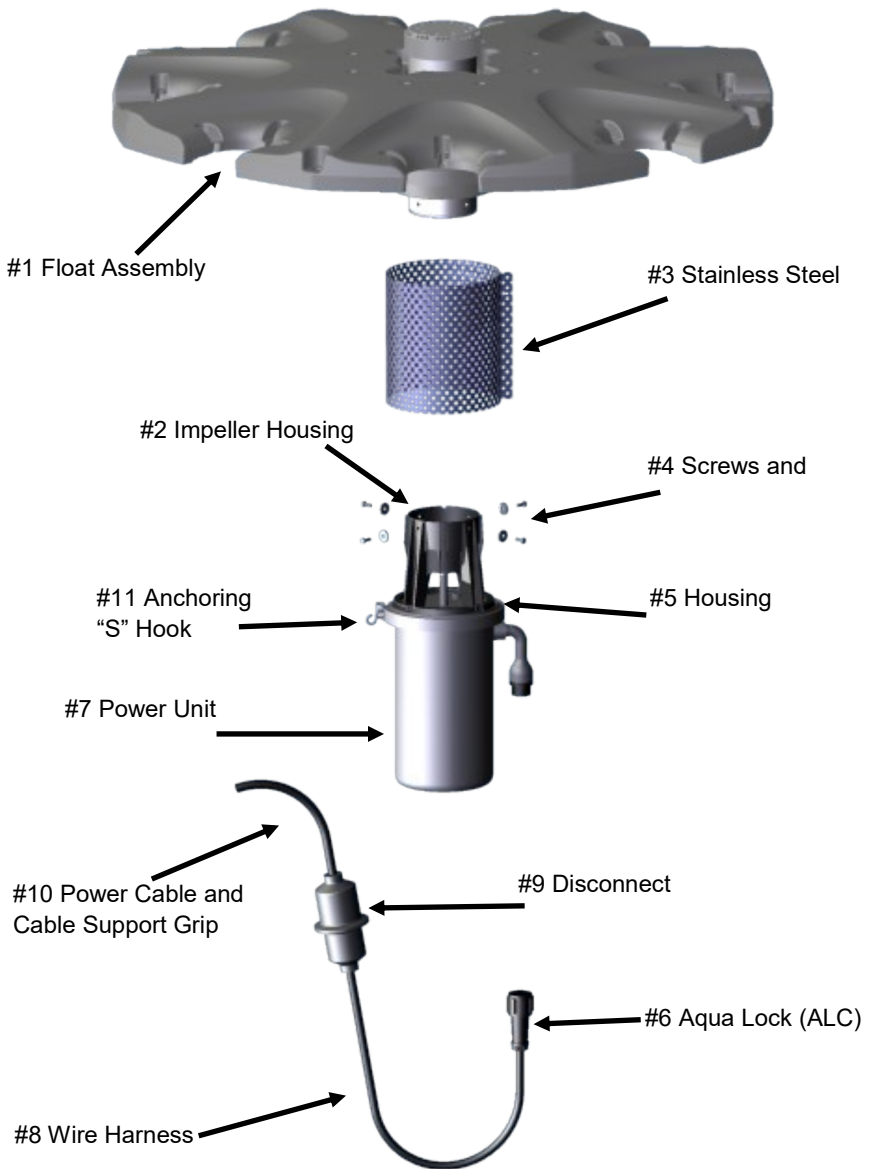
CAUTION: DO NOT operate without the suction screen in place.

7. Attach cable support grip (#10) on Anchoring “S” hook (#11) provided on the housing band clamp (#5) to keep strain off cable and cable disconnect assembly (#9).
8. Tip the unit so that the float edge is touching the ground and attach AquaLock (ALC) (#6) connector.

CAUTION: HAND TIGHTEN ONLY! Do not use tools such as a pipe wrench or pliers as you may over tighten and damage the connectors.

Note: When your unit and/or lighting system requires removal, protective caps have been provided to assist in maintaining a clean cable environment. Simply hand tighten one half to your power unit and the other half to your cable end. When you remove the protective caps, keep them in a safe place, such as the control panel.

ASSEMBLY INSTRUCTIONS (CONT.)



NIGHT GLOW LIGHTING SYSTEMS ASSEMBLY INSTRUCTIONS

(Pictures used for representational purposes, may not depict actual product)

Check to see that all light fixture retaining bands are in place. To install the retaining bands follow the instructions below, to install light fixtures, skip to step 2.

1. To install light fixture retaining band on existing float:

- Place the unit on level surface with motor down and float up.
- Place one bent leg in float slot as shown.
- Maneuver the leg into the slot as far as it will go.
- Work second bent leg into the other slot.
- Center the clip over opening and bolt into place using hardware provided.

Note: The large washers are assembled on the top of the float and the small washer and nut are assembled against the light fixture retaining band on the bottom.

- Before tightening, slide the retaining band and bolt as far as they will go towards the center of the float.

Figure 1



Figure 2



2. To install light fixture into float with existing light fixture retaining band:

- Position the fixtures around the float.
- Place the light fixture clamp ring under the angle tabs as shown.
- Slide the light fixture in until it snaps into place. The fixture may have some free movement, but should not fall out.
- Rotate lights to bring the clamp ring stud behind the float edge.

Figure 3



Figure 4



NIGHT GLOW LIGHTING SYSTEMS ASSEMBLY INSTRUCTIONS (CONT.)

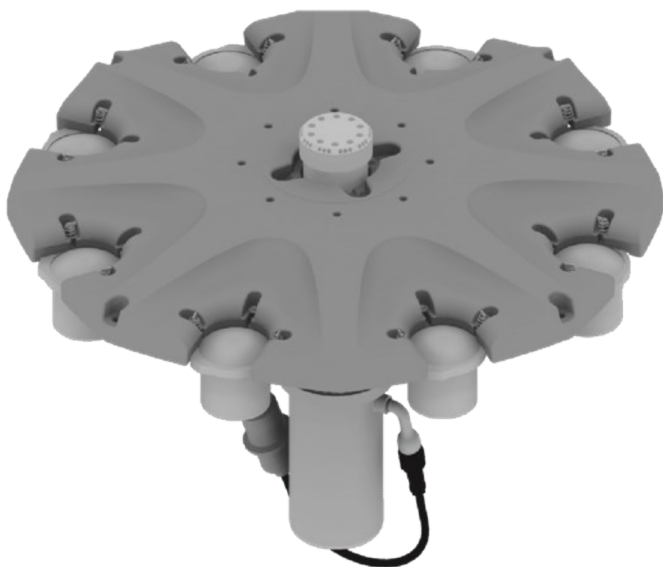
3. To remove light fixture from float with light fixture retaining band:

- a. Pull any fixture toward the open side of the float.
 - b. As the fixture meets obstruction of the float, angle the fixture slightly as shown to clear the float and continue to pull away from the float center line.
4. After fixtures are installed on the float, connect the Aqua Lock (ALC) together.

HAND TIGHTEN ONLY!

CAUTION: HAND TIGHTEN ONLY! Do not use tools such as a pipe wrench or pliers as you may over tighten and damage the connectors.

Note: When your unit and/or lighting system requires removal, protective caps have been provided to maintain a clean cable environment. Simply hand-tighten one half to your light set and the other half to your cable end. When you remove the protective caps, keep them in a safe place, such as the control panel.



ELECTRICAL CONNECTION FOR 1 - 5HP

Electrical connection to be completed by a licensed electrician in accordance with the National Electric Code and local codes or ordinances.

WARNING: This unit and lighting system are pre-wired and is provided with a GFCI for your safety and the safety of your equipment in the event of an electrical short, ground or equipment failure. **DO NOT** remove or modify the GFCI. Removal or modifications could result in electrocution to anyone, human or animal, in contact with the water.

- **TURN OFF** electrical power at fuse box or service panel before making any electrical connections.
- The control panel enclosure is rain-tight and includes a GFCI breaker, timer, contactor and overload assembly. **DO NOT** bypass your control panel. Bypassing the control panel could result in electrocution of anyone, human or animal in contact with the water.
- Underwater splices are dangerous and will void the warranty. Electrical cable(s) must extend completely onto shore to power source without breaks or splices.

Electrical connection to control panel

WARNING: Make sure power is **OFF!**

1. Take the four (4) conductor cable from your unit and securely fasten it to the control panel.
2. Connect **black lead** from cable to terminal marked 1T1 on terminal strip.
3. Connect **white lead** from cable to terminal marked 1T2 on terminal strip.
4. Connect **red lead** from cable to terminal marked 1T3 on terminal strip.
5. Connect **green lead** to the grounding terminal.

Steps A – D are for optional lighting system.

- a. Take the three (3) conductor cable for the lighting system and securely fasten it to the control panel.
- b. Connect **black lead** from cable to terminal marked X1 on terminal strip.
- c. Connect **white lead** from cable to terminal marked X2 on terminal strip.
- d. Connect **green lead** to the grounding terminal.

ELECTRICAL CONNECTION (CONT.)

Electrical connection to customer supplied power source

WARNING: Make sure power is **OFF**!

1. Connect **Line 1 to L1** on the terminal strip.
2. Connect **Line 2 to L2** on the terminal strip.
3. Connect **Line 3 to L3** on the terminal strip (3 phase only).
4. Connect the **neutral to N** on the terminal strip (208-240V only).
5. Connect the **ground to the grounding** terminal.
6. Set or verify that the overload assembly in the panel is set to the motor nameplate value plus two (2) amperes.

BEFORE INSTALLING INTO THE WATER, test the unit briefly (30 seconds or less) to make sure it runs and check for proper rotation (counter clockwise looking down from top of power unit). Listen for any unusual noises. Unit should run smoothly and quietly. If single phase rotation is backwards, **PLEASE CONTACT THE FACTORY**

IMMEDIATELY. If three phase rotation is backwards, change any two motor load leads. If rotation is still backwards check all connections or contact the factory for assistance.

WARNING: Always make sure power is **OFF** when changing motor direction.

WARNING: DO NOT operate the unit out of the water except for testing and checking rotation (30 seconds or less). **DO NOT** attempt maintenance procedures or adjustments with unit in operation.

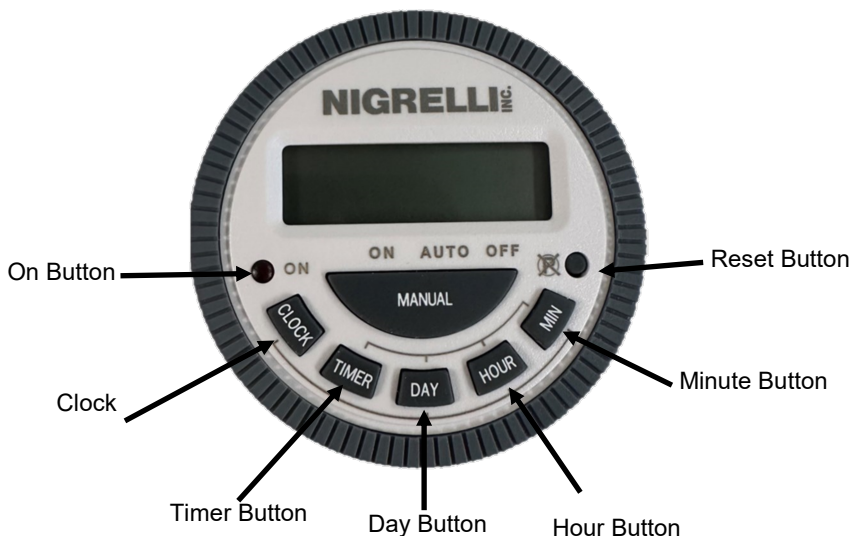
WARNING: DO NOT burn the lighting fixtures out of the water except to test the lamps (60 seconds or less). Light lenses **MUST BE** completely covered with water to prevent lens failure.

NOTE: Excessive buildup on the lenses may cause the lenses to crack, lamps to burn out and gaskets to fail. To maintain maximum light output and long lamp life, cleaning of the lenses may become necessary.

GROUNDING

Permanently ground this unit in accordance with the National Electric Code and local codes or ordinances. Use a copper conductor of the correct size from the grounding terminal in the control box to a grounded connection in the service panel or a properly driven and electrically grounded ground rod.

DIGITAL TIMER OPERATING INSTRUCTIONS



1. Apply power to turn the timer on.
2. Press the RESET button to clear all data from memory. Use a pen point to press.

SETTING THE CLOCK

3. Press and hold the CLOCK button.
4. While holding the CLOCK button, press the DAY, HOUR or MINUTE button to the desired day / time.

Note: You must advance past 12:00 to set PM.

5. Release the CLOCK button.

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DIGITAL TIMER OPERATING INSTRUCTIONS (CONT.) PROGRAMMING

1. There are 15 daily program settings built into the timer.
 - a. MO TU WE TH FR SA SU
 - b. MO
 - c. TU
 - d. WE
 - e. TH
 - f. FR
 - g. SA
 - h. SU
 - i. MO TU WE TH FR
 - j. SA SU
 - k. MO TU WE TH FR SA
 - l. MO TU WE
 - m. TH FR SA
 - n. MO WE FR
 - o. TU TH SA
2. Press the TIMER button once. "1^{ON} --:--" appears.
3. Press the DAY button repeatedly for desired days ON.
Ex. Mo Tu We Th Fr Sa Su.
4. Press the HOUR / MIN button repeatedly for desired ON time.
Note: You must advance past 12:00 to set PM.
5. Press the TIMER button once. "1OFF --:--" appears.
6. Press the DAY button repeatedly for desired days OFF.
Note: Must match "1^{ON}" day settings.
7. Press the HOUR / MIN button repeatedly for desired OFF time.
Note: You must advance past 12:00 to set PM.
8. Repeat steps 1 through 7 for more events if desired, up to a maximum of 8 ON/OFF events per day.
9. When finished programming, press the CLOCK to execute programs.
10. Press the MANUAL button until the line is above AUTO.

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DIGITAL TIMER OPERATING INSTRUCTIONS (CONT.)

PROGRAMMING (CONT.)

Program Example 1

Simple 7 Day Week Program - Timer to turn on at 7:00 AM everyday and off at 11:30 PM everyday.

PROGRAM KEY DISPLAY

EVENT 1 - ON

1. Press the TIMER button. "1^{ON} --:--" appears.
2. Press the DAY button until Mo through Su is displayed.
3. Press the HOUR button until 7:00 AM appears.
4. Use the MIN button until :00 appears.
5. Press the TIMER button. "1OFF --:--" appears.

EVENT 1 - OFF

1. Press the DAY button until Mo though Su is displayed.
2. Press the HOUR button until 11:00 PM appears.
3. Press the MIN button until :30 PM appears.
4. Press the CLOCK button to execute the program.
5. Press the MANUAL button until the line is above AUTO.

Program Example 2

3 Event Program

Event 1:

Turn timer ON at 7:30 AM and OFF at 11:30 PM Monday through Friday.

Event 2:

Turn timer ON at 8:00 AM Saturday and turn timer OFF at 2:00 AM Sunday.

Event 3:

Turn timer ON at 9:00 AM Sunday and turn timer OFF at 10:00 PM Sunday. This is a 3 event program. There will be 5 events left if needed.

EVENT 1 - ON (Timer is ON at 7:30 AM Monday through Friday)

<u>PROGRAM KEY</u>	<u>DISPLAY</u>
--------------------	----------------

- | | |
|---|----------------------------------|
| 1. Press the TIMER button. | "1 ^{ON} --:--" appears. |
| 2. Press the DAY button until Mo Tu We Th Fr appears. | |
| 3. Press the HOUR button until 7:00 AM appears. | |
| 4. Press the MIN button until :30 AM appears. | |
| 5. Press the TIMER button. | "1OFF --:--" appears. |

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DIGITAL TIMER OPERATING INSTRUCTIONS (CONT.)

Program Example 2 (cont.)

EVENT 1 - OFF (Timer is OFF at 11:30 PM Monday through Friday)

1. Press the DAY button until Mo Tu We Th Fr appears.
2. Press the HOUR button until 11:00 PM appears.
3. Press the MIN button until :30 PM appears.
4. Press the TIMER button until "2_{ON} --:--" appears.

EVENT 2 - ON (Timer is ON at 8:00 AM Saturday)

1. Press the DAY button until Sa appears.
2. Press the HOUR button until 8:00 AM appears.
3. Press the TIMER button until "2OFF --:--" appears.

EVENT 2 - OFF (Timer is OFF at 2:00 AM Sunday)

1. Press the DAY button until Su appears.
2. Press the HOUR button until 2:00 AM appears.
3. Press the TIMER button until "3_{ON} --:--" appears.

EVENT 3 - ON (Timer is ON at 9:00 AM Sunday)

1. Press the DAY button until Su appears.
2. Press the HOUR button until 9:00 AM appears.
3. Press the TIMER button until "3OFF --:--" appears.

EVENT 3 - OFF (Timer is OFF at 10:00 PM Sunday)

1. Press the DAY button until Su appears.
2. Press the HOUR button until 10:00 PM appears.
3. Press the CLOCK button to execute the program.
4. Press the MANUAL button until the line is above AUTO.

DIGITAL TIMER OPERATING INSTRUCTIONS (CONT.)

REVIEWING PROGRAMMED EVENTS

To review the events at any time, press the TIMER button, "1ON" will be displayed. Press the TIMER button again to review the "1OFF" setting. Press the TIMER button repeatedly to review events 2 through 8. Press the CLOCK button to return to the time of day.

CHANGING AN EVENT

1. Press the TIMER button repeatedly until the event that you wish to change is displayed.
2. Press the DAY, HOUR, or MIN button to adjust the event setting.
3. Press the CLOCK button to return to the time of day.

NOTE: If you need to delete an on / off time, you must **RESET** the timer.

HOW TO REPLACE THE BATTERIES

1. The timer is equipped with a CR2032 lithium battery which keeps the time on the timer correct if power is removed from the timer.
2. To replace the battery, use a coin to remove the battery cover on back of the timer. Turn the cover one quarter turn clockwise and remove the cover.
3. Using a small screwdriver, pry out the battery. Install the new battery and replace the cover.

Note: The timer settings will be retained for approximately one (1) minute once the battery is removed.

Note: The battery can be purchased in most local drug and big box stores.

TEMPORARY OVERRIDE

1. When the timer's output status is "ON".

Press the MANUAL key to move the indicator from "AUTO" to "OFF", timer shall turn to "OFF" status, programs overridden. Press the MANUAL again to switch the timer status to "AUTO", timer's output shall continue maintaining "OFF". Timer shall resume its automatic operation when the next program (event) calls for "ON".

2. When the timer's output status is "OFF".

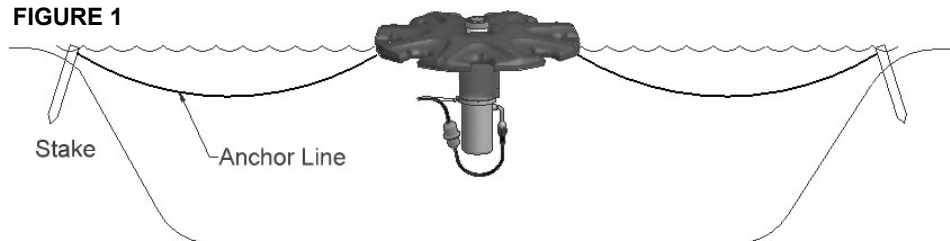
Press the MANUAL key, to move the indicator from "AUTO" to "ON", timer shall turn to "ON" status, programs overridden. Press the MANUAL again to switch the timer's status to "AUTO", the timer's output shall continue maintaining "ON". The timer shall resume its automatic operation when the next program (event) calls for "OFF".

ANCHORING INSTRUCTIONS

CAUTION: If the unit is not properly anchored with adequate tension, the unit will rotate when in operation, resulting in twisted and damaged electrical cable(s).

FIGURE 1 is most applicable for a smaller pond, or one that is easily accessible from two sides.

FIGURE 1



Required Equipment (not provided)

- Two (2) anchor lines (1/4 inch nylon, 1/8" stainless steel cable, or equivalent).
- Two (2) stakes (wood stake or metal rod that can be driven securely into pond's edge).

Anchoring Steps

1. With the unit fully assembled and still on shore, attach anchor lines to the float. Only use the anchor holes which are opposite from one another. Next, carefully lower unit into the pond. **DO NOT** tangle anchor lines and electrical cable(s).
2. Once the unit is floating freely hold or secure one anchor line. With second line, walk slowly away from the first stake to opposite side of pond, pulling unit with you. Continue until unit is in desired location.
3. Secure all lines, keeping tension on all. Make sure electrical cable(s) is untangled and has some slack from unit to shore.

ANCHORING INSTRUCTIONS (CONT.)

CAUTION: If the unit is not properly anchored with adequate tension, the unit will rotate when in operation, resulting in twisted and damaged electrical cable(s).

In a larger body of water or where vandalism is a concern, FIGURE 2 is the preferred method.

FIGURE 2



Required Equipment (not provided)

- Two (2) anchor lines (1/4 inch nylon, 1/8" stainless steel cable or equivalent). Anchor Line length should equal twice the depth of the pond at point of installation. (Example, if pond depth is eight feet, each anchor line should be at least sixteen feet.) **If the depth of the pond varies more than three feet use FIGURE 1.**
- Two (2) anchors (eight inch concrete blocks, approximate weight of 30 pounds each is sufficient).

Anchoring Steps

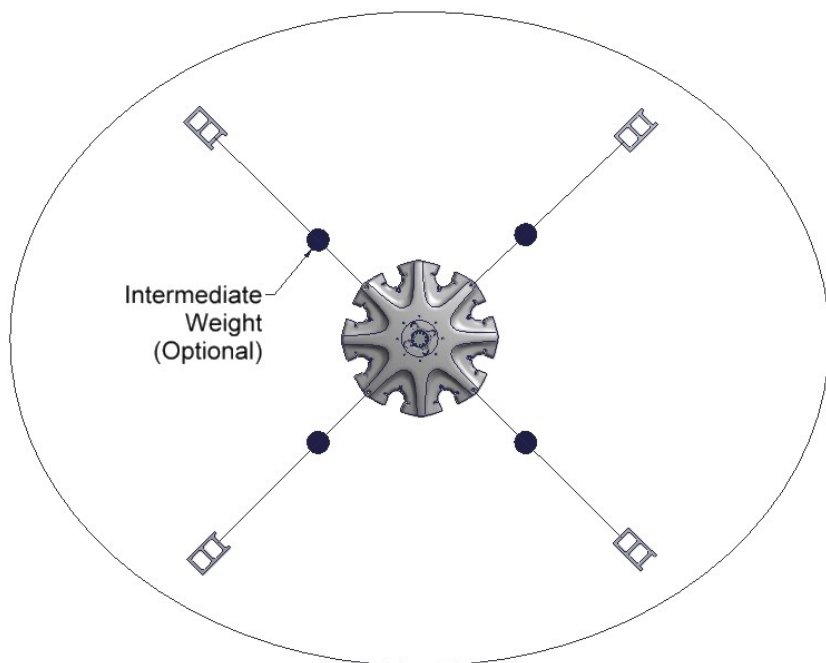
1. With unit fully assembled and still on shore, attach anchor lines to the float. Only use the anchor holes which are opposite from one another. Next, carefully lower unit into the pond. **DO NOT** tangle anchor lines and electrical cable(s).
2. Position unit at desired location in pond, playing out electrical cable(s) from shore. Attach anchor lines to anchors and anchor unit making sure you cannot rotate unit more than 45 degrees. Some movement is necessary to allow float to move up and down with changes in water depth. **If you can rotate float more than 45 degrees, adjust anchor lines or relocate anchors.**

FOUR-POINT ANCHORING

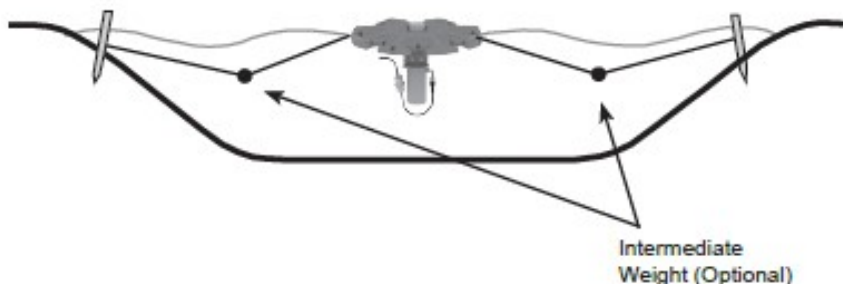
At times, because of pond depth, pattern, or pond size, four-point anchoring may become necessary or desirable to prevent your unit from rocking.

1. Below are two drawings that depict the manner in which the anchors are to be deployed.
2. You will need to pick four anchor points on the float and secure your anchor lines to these points.
3. About 10 to 15 feet from your anchor points on your float, intermediate weights of approximately 5 lbs. each should be secured to your anchor lines. These weights will keep tension on your anchor lines even though the water depth may vary.
4. Stretch out your anchor lines so your intermediate weights are suspended in the water and not sitting on the bottom. When the anchor lines are properly stretched out, fasten them securely to your anchors on shore or the bottom as required.

CAUTION: If the unit is not properly anchored with adequate attention, the unit will rotate when in operation, resulting in twisted and damaged electrical cable(s).



ANCHORING INSTRUCTIONS (CONT.)



Intermediate weights can also be used with all kind of anchoring to keep constant tension on the anchor lines when the pond depth varies. Follow the installation instructions from the previous page.

WINTERIZATION

AquaMaster® strongly suggests removing the unit for winter if you experience long periods of cold, freezing weather. Damage to the float, lighting, and power unit could result from ice around the unit or lighting system. Also, possible damage to the motor could result if the propeller or impeller is frozen in the ice when the unit tries to start.

There are specific maintenance procedures, as outlined in these assembly instructions, that will keep your unit trouble free for years. These procedures are especially important should you live in a potentially cold climate. The removal of your **AquaMaster®** unit before freezing conditions occur is a perfect opportunity to inspect your unit and keep it running trouble free.

If you have freezing temperatures for short periods of time, you can decrease the chance of freezing by running the unit for 24 hours a day.

NOTICE: Freeze damage to any component of your **AquaMaster®** unit or lighting system will not be covered under warranty.

WARNING: When operating the unit in ice covered bodies of water, the ice around the open water will be dangerously thinner than the rest of the body of water. Signs such as **DANGER THIN ICE** need to be posted. Injury and/or fatality may result if this danger is not posted. **Owner assumes all responsibility.**

MAINTENANCE

WARNING: DISCONNECT ALL POWER BEFORE SERVICING

Like all pieces of precision machinery, certain maintenance procedures must be performed to keep the unit running trouble free for years. The following recommendations should be done annually to prevent a more serious and costly problem from occurring.

Following these recommended procedures will result in years of trouble free operation, as well as keeping the warranty in effect.

- In all cases it is strongly recommended that the unit is removed from the water annually for a good visual inspection.
- Remove the unit from the water and inspect the nuts, bolts, brackets and float. Replace any broken or worn parts. Tighten any nuts and bolts that may have worked loose.
- Make sure the intake screen is in place, intact and free of debris. If debris is floating in the water (plastic bags, fishing line, etc.), performing routine maintenance more frequently on the unit will help assure years of trouble free operation.
- Inspect the motor shaft, propeller and diffuser making sure they are not damaged. If there is damage to any parts, replace them. If debris has wrapped around them, remove it, and inspect the shaft especially around the seal area. Debris wrapped in this area can push the seal faces apart causing water to enter the unit and shorting out the motor. If there is any evidence of this an annual maintenance should be performed (oil and seal change) to keep the unit running properly and warranty in effect.
- Check motor bearings by turning the propeller shaft by hand; it should turn smoothly and quietly.
- Inspect the power cable making sure there are no cuts, worn spots or animal chew marks. If any damage has occurred, replacement of the cable must be done, do not splice your cables. Make sure the cable support grip is not broken and securely fastened to the unit before putting the unit back into the water.
- Under normal conditions, internal maintenance is not required for a specific period of time after the initial installation of the unit. Routine maintenance consisting of power unit oil and seal change, along with inspection of all other in-water and electrical control panel components is recommended annually when installed in saltwater or highly brackish water conditions. Preventative or routine maintenance expenses are the responsibility of the customer. For warranty repair or replacement consideration, equipment must be pre-approved and returned to the **AquaMaster®** factory for inspection, repair or replacement.
- On 1-5HP units it is recommended that maintenance of replacing the seal and oil be performed annually after the initial 5 years of operation and every year thereafter.

For further information, parts ordering assistance and the name of the closest distributor contact the factory at 1.800.693.3144 or 1.920.693.3121.

MASTERS SERIES® 1-5 HP IN-WATER COMPONENTS PRODUCT WARRANTY

AQUAMASTER®, hereinafter referred to as The Seller, warrants your Series 304 and/or Series 316 Stainless Steel 1-5 HP motor and seal assembly, float and underwater power cable (referred to as in-water components) for a period of 5 years on parts and labor, **when used in fresh water only**. This coverage is at 100% replacement costs, should it fail due to defects in materials or workmanship, during the 5 year parts and labor warranty period. This is in effect from the date of shipment, when given normal and proper usage as determined by The Seller or its authorized representative upon examination, and when owned by the original user. **Please note that normal and proper usage does not include any salt water or highly brackish water conditions. Series 316 Stainless Steel units must be used for these conditions.**

SERIES 316 STAINLESS STEEL IN-WATER COMPONENTS PRODUCT WARRANTY

The Seller warrants your Series 316 Stainless Steel 1-5HP in-water components for a period of 3 years on parts and labor, when operating in any salt water or highly brackish water conditions. This coverage is at 100% replacement costs, should it fail due to defects in materials or workmanship, during the 3 year period. This is in effect from the date of shipment, when given normal and proper usage as determined by The Seller or its authorized representative upon examination, and when owned by the original user.

ELECTRICAL CONTROL PANEL AND THEIR COMPONENTS PRODUCT WARRANTY

The Seller warrants all parts of its electrical control panel and their components against defects in material or workmanship for a period of 3 years on parts and labor from date of shipment when given normal and proper usage as determined by The Seller upon examination, and when owned by the original user. Components purchased by The Seller as complete units and used as an integral part of The Seller's equipment will be covered by the standard warranty of the manufacturer thereof. The Seller will repair or replace F.O.B. original shipping point (but not install) any part or parts of its manufacture which in its judgment shall disclose defects in either material or workmanship. If requested by The Seller, parts for which a warranty claim is made are to be returned transportation prepaid to our Factory. This warranty becomes void if the article claimed to be defective has been repaired or altered in any way, or if the unit has been subject to misuse, negligence or accident, or when instructions for installing or operating have been disregarded.

It is recommended that the enclosed warranty card is returned to The Seller. A return authorization number must be obtained prior to any required return. We make no other warranty, expressed or implied, and make no warranty of merchantability or of fitness for any particular purposes, and there are no warranties which extend beyond the description of the face hereof. No employee or representative is authorized to change this warranty in any way or grant any other warranty. The remedies hereinabove afforded to original user are exclusive of all other remedies provided by law. The Seller shall not be liable for indirect

UNDERWATER NIGHT GLOW LIGHTING SYSTEM IN-WATER COMPONENTS PRODUCT WARRANTY

AQUAMASTER®, hereinafter referred to as the seller, warrants all products and parts of its own manufacture against defects in material or workmanship for a period of 3 years on parts and labor, 3 years on LED lamps from date of shipment when given normal and proper usage as determined by seller upon examination, and when owned by the original user, **when used in fresh water only or if purchased Series 316 Stainless Steel to operate in any salt water or highly brackish water conditions.** Components purchased by seller as complete units and used as an integral part of sellers equipment will be covered by the standard warranty of the manufacturer thereof. Seller will repair or replace F.O.B. original shipping point (but not install) any part or parts of its manufacture which in its judgment, shall disclose defects in either material or workmanship. If requested by seller, parts for which a warranty claim is made are to be returned transportation prepaid to our factory. Expressly excluded from this warranty are replacement light bulbs, which are normal wear and replacement items. This warranty becomes void if article claimed to be defective has been repaired or altered in any way or when the article has been subject to misuse, negligence or accident, or when instructions for installing or operation have been disregarded. This coverage is at 100% replacement costs, should it fail due to defects in materials or workmanship, during the 3 year period, halogen lamps have no warranty. This is in effect from the date of shipment, when given normal and proper usage as determined by The Seller or its authorized representative upon examination, and when owned by the original user. **Please note that normal and proper usage does not include any salt water or highly brackish water conditions. Series 316 Stainless Steel units must be used for these conditions.**

GENERAL WARRANTY INFORMATION

AquaMaster® products and their accessories are warranted against defects in material and workmanship. The warranty period commences on the date the unit is installed as shown on the warranty registration card that must be returned to **AquaMaster®**. If no card has been returned, the warranty commences on the date the unit was shipped from our factory.

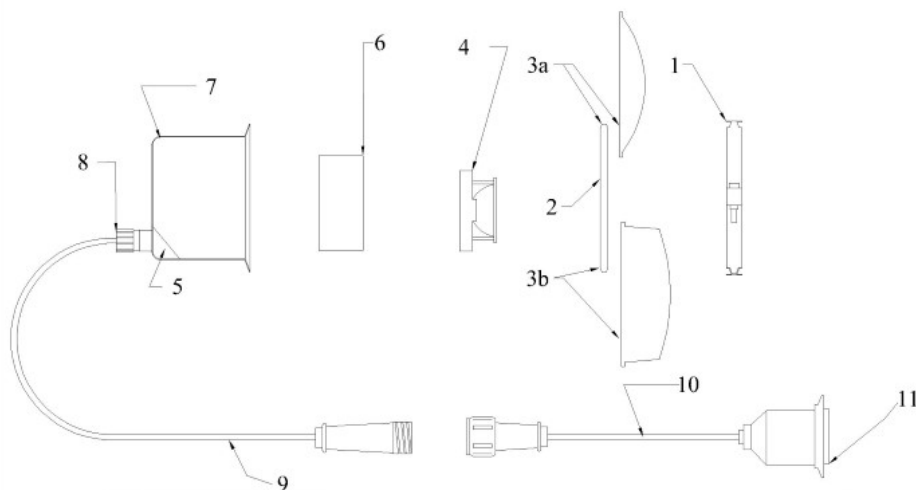
During the warranty period, **AquaMaster®** will repair or, at our discretion replace at no charge, all defective components provided the product is returned, shipping prepaid, to the **AquaMaster®** Service Department.

All warranty claims require prior Factory approval and authorization for return or service. Any and all warranty service work must be performed by **Aquamaster®** or approved Factory Trained Authorized Service Centers. Any type of service and repair performed within the warranty period by unauthorized personnel will void the warranty.

Before returning a unit to the factory for repair, a Return Goods Authorization Number must be obtained. You can receive a number by calling the factory during normal business hours of 7:00 a.m. to 4:30 p.m. Central Standard Time at 1-800-693-3144 or 920-693-3121.

If after inspection of a unit sent in for repair no problem is found, a standard service fee may apply.

120 VOLT NIGHT GLOW LIGHTING



Item	Description	Part Number						
		11 Watt LED	18 Watt LED	21 Watt LED	22 Watt LED	35 Watt LED	20 Watt RGBW LED	40 Watt RGBW LED
1	Clamp	880004	880035	880035	880035	880035	880004	880035
2	Lens Gasket	880055	880111	880111	880111	880055	880111	880111
3a	Clear Lens Kit	761079	761073	761073	761073	761073	761079	761073
3b	Clear Top Hat Lens Kit	N/A	761070	761070	761070	761070	N/A	761070
4	Light Plate Assembly**	CBA11-*	Consult Factory	Consult Factory	CBA22-*	CBA35-*	Consult Factory	Consult Factory
5	Potting Resin (1 Per 2 Light Housing)	880128	880128	880128	880128	880128	880128	880128
6	Power Supply Kit**	880276	880277	Consult Factory	880277	880278	Consult Factory	Consult Factory
7a	Housing Single Hub w/Studs	880016	880012	880012	880012	880012	880016	880012
	Housing Single Hub w/o Studs	880044	880106	880106	880106	880106	880044	880106
7b	Housing Double Hub w/Studs	880017	880013	880013	880013	880013	880017	880013
	Housing Double Hub w/o Studs	880045	880107	880107	880107	880107	880045	880107
8	Cord Connector	860016	860016	860016	860016	860016	860015	860015
9	ALC Assembly, Light End	760512-SS	760512-SS	760512-SS	760512-SS	760512-SS	760977	760977
10	ALC Assembly, Cable End	760517	760517	760517	760517	760517	760975	760975
11	Kit - O-Ring & Wire Nut	760830	760830	760830	760830	760830	761087	761087
12	Light Jumper Kit	***Requires Potting Resin (item 5)						
	5FT w/o SSB	3000121	3000121	3000121	3000121	3000121	N/A	N/A
	5FT w/SSB	3000125	3000125	3000125	3000125	3000125	3000134	3000134
	8FT w/o SSB	3000122	3000122	3000122	3000122	3000122	N/A	N/A
	8FT w/SSB	3000126	3000126	3000126	3000126	3000126	3000135	3000135
	10FT w/o SSB	3000123	3000123	3000123	3000123	3000123	N/A	N/A
13	10FT w/SSB	3000127	3000127	3000127	3000127	3000127	3000136	3000136
	Sequencer Light Jumper Kit	***Requires Potting Resin (item 5)						
	5FT w/o SSB	3000128	3000128	3000128	3000128	3000128	N/A	N/A
	5FT w/SSB	3000131	3000131	3000131	3000131	3000131		
	8FT w/o SSB	3000129	3000129	3000129	3000129	3000129		
	8FT w/SSB	3000132	3000132	3000132	3000132	3000132		
	10FT w/o SSB	3000130	3000130	3000130	3000130	3000130		
	10FT w/SSB	3000133	3000133	3000133	3000133	3000133		

* Select a Board color: Amber, Blue, Green, Red, White, Warm White

** Replacement of Lens Gasket is mandatory anytime lens is removed.

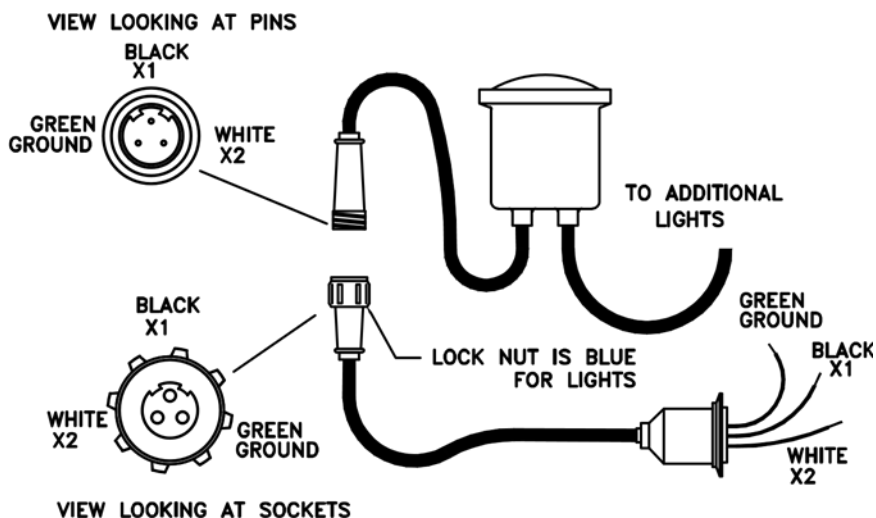
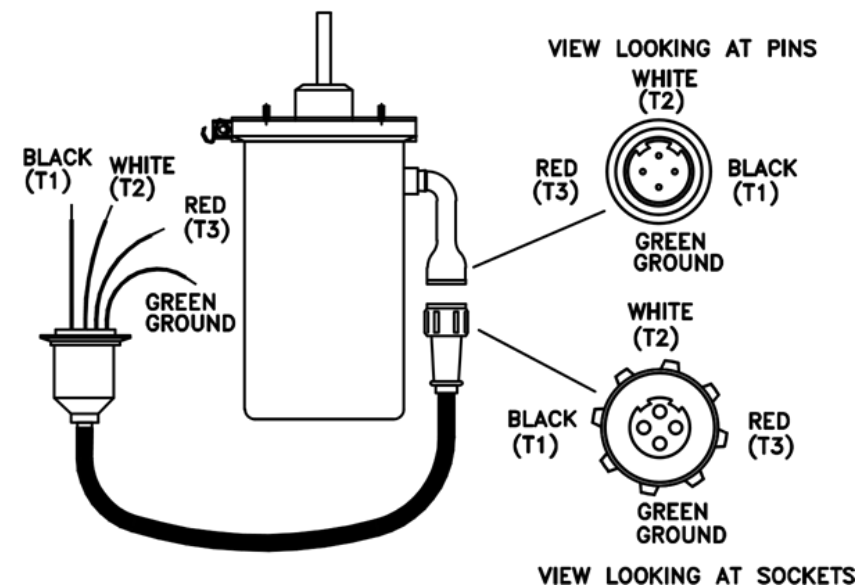
NOTE: Lighting fixtures with LED lamps must be returned to **AquaMaster®** for service. There are no field serviceable components inside the fixtures.

TROUBLESHOOTING GUIDE

WARNING: Turn off all electrical power before servicing the unit. To prevent accidental startup of the unit while repairs are in process or while servicing the unit, the main electrical equipment disconnect should be turned off and the panel should be locked out.

Symptom	Possible Cause	Solution
The unit will not operate.	There is no electrical power.	Check the breakers or fuses at the power source. Check the breakers and fuses in the control panel. Check the connections in the cord/motor disconnect. Check for the proper voltage.
	The motor hums but will not run.	Check the capacitors.
	GFCI tripped.	Reset the GFCI. If the GFCI continues to trip, have a qualified electrician check to determine the cause. Check the power cable for bite or chew marks (animal damage). Check the power cable cuts. If cut or damaged, replace the cable.
	The timer is not correct.	Reset the timer. This should be done after any power interruption. Check the voltage to the timer.
The motor runs but there is no spray pattern or the pattern is erratic.	The propeller is loose or missing. The propeller is bent.	Tighten or replace the propeller assembly. Replace the propeller diffuser assembly.
	Debris in the propeller diffuser assembly	Clean the debris out. NOTE: Plastic bags, plastic wrap on the propeller or shaft. This must be cleaned out for proper performance.
	The nozzle is clogged. The propeller is bent.	Remove the nozzle and clean out the debris. NOTE: If the water is very dirty, put on an oversized intake screen.
	The unit is touching the bottom of the water.	Reposition the unit to a deeper point in the water.
	High Winds.	No corrective action to be taken. The pattern will return to normal as the winds subside.
	Sinking float.	Replace the float.
The timer will not run.	Blown fuse. Bad timer.	Replace the control fuse. Replace the timer.
The timer runs and the power are okay but the unit will not run.	Bad timer contacts.	Replace the timer.
The contactor is not good.	Overload tripped.	Reset the overload.
	Contactor is defective.	Replace the motor contactor.
The unit runs but stops and starts by itself.	Low oil in the unit.	Consult a dealer or authorized repair center.
	Leaky seal or damaged cable connector.	Consult a dealer or authorized repair center.

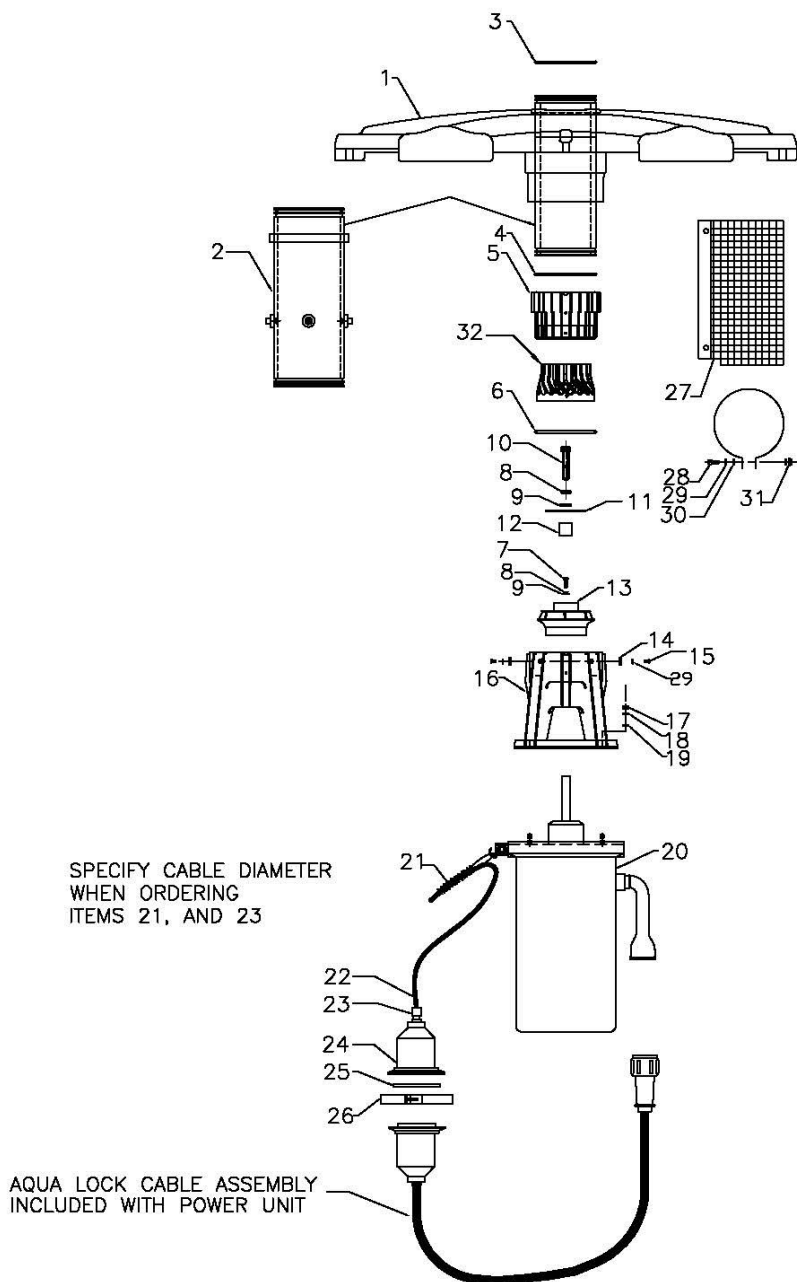
**MATCHING WIRE COLOR TO PIN LOCATION
FOR AQUALOCK (ALC)
USE FOR DIAGNOSTIC PURPOSES ONLY**



MD001-608

ITEM	QUAN.	PART #	DESCRIPTION
1.	1	760335	FLOAT ASSEMBLY WITH TUBE (1HP)
	1	760336	FLOAT ASSEMBLY WITH TUBE (2-3HP)
	1	760337	FLOAT ASSEMBLY WITH TUBE (5HP)
2.	1	820195	FLOAT TUBE ASSEMBLY, 1-3 HP
	1	820196	FLOAT TUBE ASSEMBLY, 5HP
3.	1	790434	NOZZLE O-RING, 1-3 HP
	1	790435	NOZZLE O-RING, 5HP
4.	1	790434	HOUSING O-RING 1-3 HP
	1	790435	HOUSING O-RING 5 HP
5.	1	820181	INSERT, 1-3 HP ONLY
6.	1	820194	O-RING, INSERT, 1-3 HP ONLY
7.	1	-	IMPELLER BOLT
8.	1	-	SS LOCK WASHER
9.	1	-	SS FLAT WASHER
10.	1	-	DIFFUSER BOLT, (LAKEWOOD PATTERN ONLY)
11.	1	820192	DIFFUSER (1-3 HP LAKEWOOD PATTERN)
	1	820193	DIFFUSER (5 HP LAKEWOOD PATTERN)
12.	1	820191	SPACER (LAKEWOOD PATTERN ONLY)
13.	1	820031	IMPELLER (1HP)
	1	820032	IMPELLER (2HP)
	1	820033	IMPELLER (3HP)
	1	820034	IMPELLER (5HP)
14.	4	-	WASHER
	4	-	WASHER
15.	4	-	SS SCREW (1-3 HP)
	4	-	SS SCREW (5 HP)
16.	1	820180	IMPELLER HOUSING
17.	4	-	SS NUT
18.	4	-	SS LOCK WASHER
19.	4	-	SS FLAT WASHER
20.	1	760062	POWER UNIT, 1 HP SINGLE PHASE
	1	760064	POWER UNIT, 2 HP SINGLE PHASE
	1	760076	POWER UNIT, 3.5 HP SINGLE PHASE
	1	760066	POWER UNIT, 5 HP SINGLE PHASE
	1	760078	POWER UNIT, 1 HP 3 PHASE
	1	760068	POWER UNIT, 2 HP 3 PHASE
	1	760070	POWER UNIT, 3 HP 3 PHASE
	1	760072	POWER UNIT, 5 HP 3 PHASE
21.	1	-	CABLE SUPPORT GRIP
22.	50'	-	CABLE
23.	1	-	CORD CONNECTOR
24.	1	810031	CABLE DISCONNECT BODY
25.	1	810032	DISCONNECT O-RING
26.	1	810033	DISCONNECT CLAMP
27.	1	820007	INTAKE SCREEN
28.	2	-	SS HEX HEAD BOLT
29.	6	-	SS LOCK WASHER
30.	4	-	SS FLAT WASHER
31.	2	-	SS NUT
32.	1	820013	FLOW STRAIGHTENER 5HP - OPTIONAL
	1	820014	FLOW STRAIGHTENER 1-3HP - OPTIONAL
			NOTE: FLOW STRAIGHTENERS ARE ONLY USED WITH NOZZLES WHICH REQUIRE THEM

NOTE:
WHEN ORDERING STAINLESS PARTS FOR SALTWATER
OR FOR CORROSIVE ENVIRONMENTS, PLEASE
FOLLOW THE PART NUMBER WITH -316.
EXAMPLE: ITEM 26 WOULD BE 810033-316.



MAINTENANCE KIT #870126
SEAL INSTALLATION TOOL #870012

MD002-247

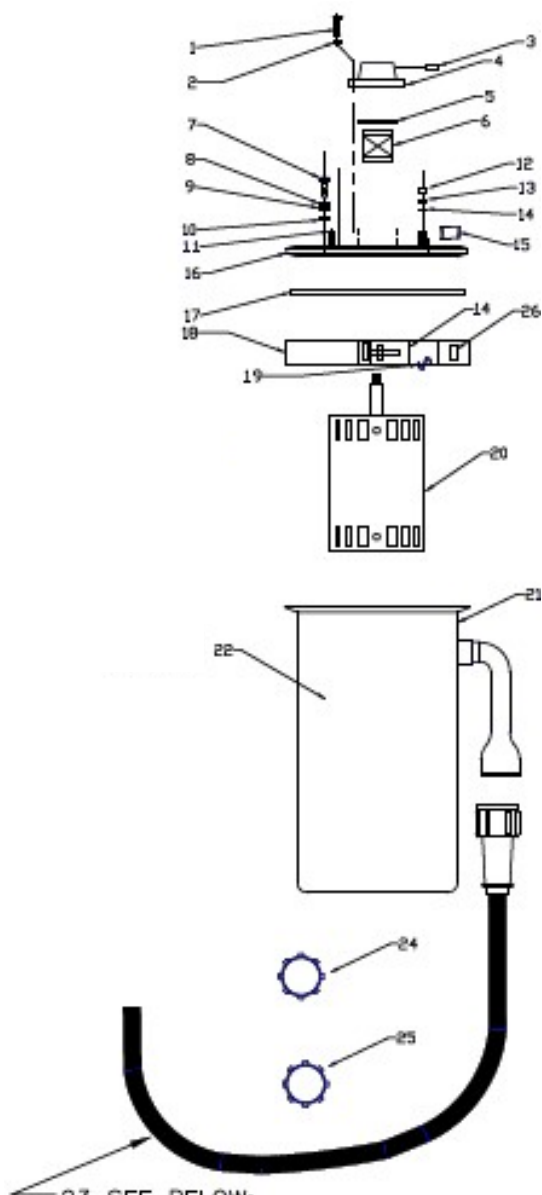
ITEM	QUAN.	DESCRIPTION	PART #	
1.	4	SOCKET HEAD SCREW, SS	790116	
2.	4	LOCK WASHER	790084	
3.	1	OIL PIPE PLUG	790013	
4.	1	SEAL CARTRIDGE	810022	
5.	1	O-RING, SEAL CARTRIDGE	800051	
6.	1	SEAL ASSEMBLY	800063	
7.	4	HEX HEAD BOLT	790134	
8.	4	LOCK WASHER	790123	
9.	4	FLAT WASHER	790121	
10.	4	MOTOR O-RING SEAL	800019	
11.	4	STUD, STAINLESS	790224	
12.	4	NUTS, STAINLESS	790140	
13.	4	LOCK WASHER	790141	
14.	6	FLAT WASHER	790142	
15.	2	OIL FILL PLUG	790005	
16.	1	TOP PLATE STAINLESS	810023	
17.	1	TOP PLATE QUAD RING	810027	
18.	1	HOUSING CLAMP	810013	
19.	1	S-HOOK	790001	<u>50 HZ #</u>
20.	1	MOTOR (1HP-S/P)	800055	770085
	1	MOTOR (2HP-S/P)	800056	770086
	1	MOTOR (3.5HP-S/P)	800072	770087
	1	MOTOR (5HP-S/P)	800038	770088
	1	MOTOR (1HP-3/P)	800034	800034
	1	MOTOR (2HP-3/P)	800061	800061
	1	MOTOR (3HP-3/P)	800037	800037
	1	MOTOR (5HP-3/P)	800039	800039
21.	1	MOTOR HOUSING ASSEMBLY	760461	
22.	8 QT.	OIL, FOOD GRADE	870001	
23.	1	10 GA AQUA LOCK ASSEM.	760494	
24.	1	SEALING CAP, POWER UNIT	810083	
25.	1	SEALING CAP, CABLE	810082	
26.	2	NYLOCK NUT, SS 5/16-24	790138	

NOTE:

WHEN ORDERING STAINLESS PARTS FOR
SALTWATER OR FOR CORROSIVE
ENVIRONMENTS, PLEASE FOLLOW THE PART
NUMBER WITH -316. EXAMPLE: ITEM 18
WOULD BE 810013-316.

MAINTENANCE KIT #870126

SEAL INSTALLATION TOOL #870012



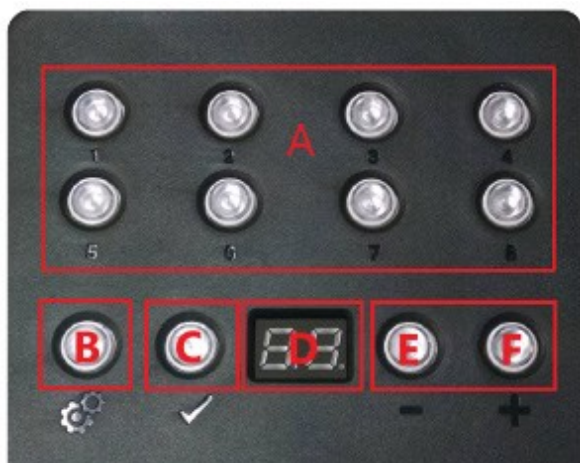
23 SEE BELOW:

760494 - 10 GA AQUA LOCK FOR:
 1 HP 120V
 3 AND 3.5 HP
 5 AND 5.5 HP

Pushbutton RGBW Quick Start Program Guide

3000989

RGBW Controller Quick Start Guide - New Controller



To Change Programs:

1. If not in scene mode, press the select button (B) until 'SA' appears in the LED display, and press the check button (C) to confirm.
2. Select programs 1-8 directly using the numbered push buttons (A).
3. Use the plus (F) and minus (E) buttons to select a program number, and press the check button to confirm.

To Change Program Speed:

1. If not in speed mode, press the select button (B) until 'SP' appears in the display (D), and press the check button (C) to confirm.
2. Use the '+' and '-' buttons to increase or decrease speed, and press the check button (C) to confirm.

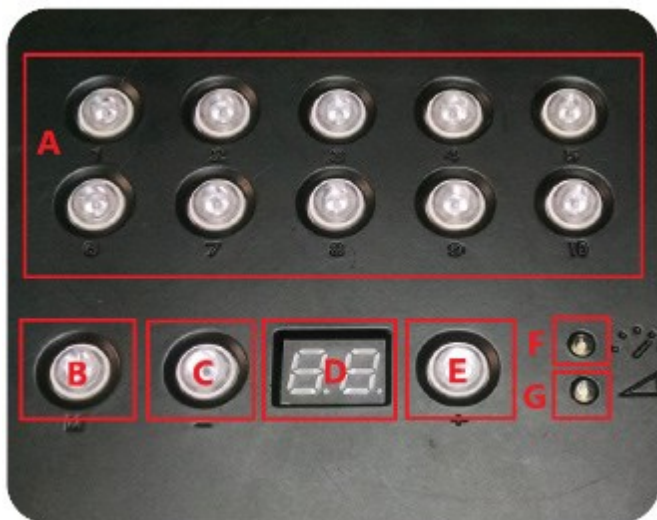
To Change Program Brightness:

1. If not in dimming mode, press the select button (B) until 'dl' appears in the display (D), and press the check button (C) to confirm.
2. Use the plus (F) and minus (E) buttons to increase or decrease speed, and press the check button (C) to confirm.

NOTE: Decreasing brightness dims all lights, and increasing brightness turns up the white component of the RGBW light.

3000989

RGBW Controller Quick Start Guide - Old Controller



To Change Programs:

1. Select programs 1-10 directly by pressing any of the numbered buttons (A).
2. Use the plus (E) and minus (C) buttons to cycle through the programs. Upon reaching the desired program, hold down the plus (E) or minus (C) button. The program number will flash in the LED display (D) when it is selected.

To Change Program Speed:

1. Press the mode button (B) until the speed indicator lights up (F).
2. Use the plus (E) and minus (C) buttons to increase or decrease speed.

To Change Brightness:

1. Press the mode button (B) until the brightness indicator lights up (G).
2. Use the plus (E) and minus (C) buttons to increase or decrease brightness.

NOTE: Decreasing brightness dims all lights, and increasing brightness turns up the white component of the RGBW light.

RGBW Program List and Custom Programs

Program List:

- | | |
|----------------------------|-----------------|
| 1. White | 15. Cool Colors |
| 2. New Year's Day | 16. RGBW |
| 3. Valentine's Day | 17. CMYW |
| 4. Mardi Gras | 18. Red |
| 5. St Patrick's Day | 19. Orange |
| 6. 4th of July | 20. Yellow |
| 7. Breast Cancer Awareness | 21. Lime |
| 8. Thanksgiving | 22. Green |
| 9. Hanukkah | 23. Teal |
| 10. Christmas | 24. Cyan |
| 11. 12 Color Fade | 25. Indigo |
| 12. Rainbow | 26. Blue |
| 13. Pastel Rainbow | 27. Violet |
| 14. Warm Colors | 28. Magenta |
| | 29. Pink |
| | 30. Black (Off) |

Custom Programs:

- | | |
|----------------------------|-----------------|
| 1. White | 16. RGBW |
| 2. New Year's Day | 17. CMYW |
| 3. Valentine's Day | 18. Red |
| 4. Mardi Gras | 19. Orange |
| 5. St Patrick's Day | 20. Yellow |
| 6. 4th of July | 21. Lime |
| 7. Breast Cancer Awareness | 22. Green |
| 8. Thanksgiving | 23. Teal |
| 9. Hanukkah | 24. Cyan |
| 10. Christmas | 25. Indigo |
| 11. 12 Color Fade | 26. Blue |
| 12. Rainbow | 27. Violet |
| 13. Pastel Rainbow | 28. Magenta |
| 14. Warm Colors | 29. Pink |
| 15. Cool Colors | 30. Black (Off) |

3000989

RGBW Program Guide

New Years: Different intensities of white blinking and flashing.

Valentine's Day: Reds, pinks and whites chasing around.

Mardi Gras: Yellow, teal and magenta fading together.

St Patrick's Day: Light and dark shades of green chasing around.

4th of July: Red, white and blue fading together.

Breast Cancer Awareness: Pink.

Thanksgiving: Autumn colors of yellow, red, brown, and orange chasing around.

Hanukkah: Blues and silvers fading together.

Christmas: Red, white and green fading together.

12 Color Fade: 12 colors around the color wheel fading together.

Rainbow: 12 colors around the color wheel chasing.

Pastel Rainbow: 12 colors around the color wheel with a white element chasing.

Warm Colors: Red, orange and yellow fading together.

Cool Colors: Blues and greens fading together.

RGBW: Red, green, blue and white fading together.

CMYW: Cyan, magenta, yellow and white fading together.

Notes: _____

Notes: _____

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Notes: _____

PN: 3002273
REVISION: C
DATE: 01 JUL 2024



BRINGING WATER TO LIFE

Floating Fountains

Masters Series®
Masters Grand Series
Masters Decorative Series
Celestial Fountains®

Fixed Base Fountains

Fixed Base Fountains Series

Lighting and Accessories

Night Glow Lighting and
Control Panel
LED Lighting System
RGBW Lighting Systems

Aeration

Volcano III & Hydromax Series
AquaAir® Ultra Aeration Systems
Ultimax® Subsurface Aeration Systems



GCSAA

