Aqua Control, Inc.

50 Hz. SELECT SERIES INSTRUCTION MANUAL

TABLE OF CONTENTS

SAFETY INFORMATION

WARNING: *This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.*

Children should be supervised to ensure that they do not play with the appliance.

Notice: Polution of the water could occur due to leakage of lubricants.

Your Aqua Control, Inc. products are made entirely of corrosion resistant materials including stainless steel, aluminum alloy, bronze and engineered plastics. They will provide safe, long and satisfactory service if properly installed, operated and maintained.

1. Follow all applicable electrical codes.
2. Protect exposed or vulnerable wiring with tubing or conduit.
3. Do not operate the unit when it is obvious the flow rate is reduced.
4. Do not work on the unit when it is turned on or operating.
5. Follow all normal safety precautions when working in and around the water.
6. Prevent tension on the electrical wires.
7. Do not carry or pull the unit by the lights or by the cord. Use the finger pockets on the float.
8. Never try to dislodge debris from the impeller or propeller while the motor is connected to the power supply.
9. Always verify that the control panel and all electrical equipment is grounded properly.
10. Whenever high voltage electricity is used under water, a potential safety hazard exists. Aqua Control, Inc. builds and provides control panels that are equipped with an Earth Leakage Circuit Breaker for both motors and lights that detect and interrupt earth (ground) faults, in order to protect people, animals, equipment and property from dangerous line-to-ground and shock hazard currents. This breaker, or residual current device (RCD), has a rated residual operating current of 30mA, and is typically calibrated to trip at 67-83% of rated fault trip current, that is 20-25 mA.

PRE-ASSEMBLY

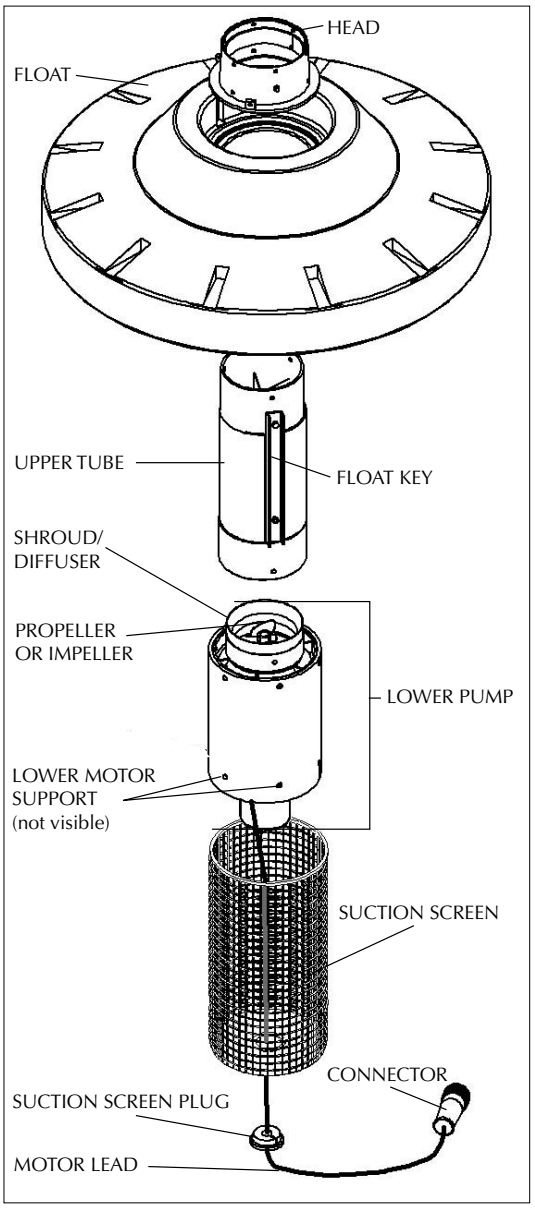
Prior to installing, verify the correct product has been ordered and received. Aqua Control, Inc. **will not** accept any returns for refund or exchange of product or components that have been installed in the water or modified in any way. Keep original packaging for returns to the factor or contact the factory for instructions as to how to obtain packaging for safe return of product.

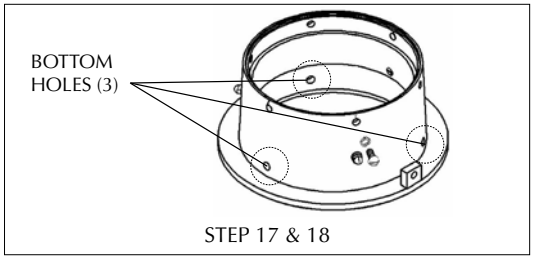
1. **Check the packing list** that accompanies the shipment. Verify all the boxes have been received. Each label will have a box number and total for the shipment (1 of 5, 2 of 5, etc.). The packing list has the total number of boxes noted at the bottom.
2. **Check the pond depth.** Is the pond deep enough for the unit being installed?
3. **Verify the incoming voltage** where it will be connected to the control panel. Does the measured voltage match the rated motor voltage requirements? Note the HP, voltage, and phase on the packing list.

SELECT SERIES
VERTICAL DISPLAY AERATOR, FOUNTAIN AND TORRENT ASSEMBLY

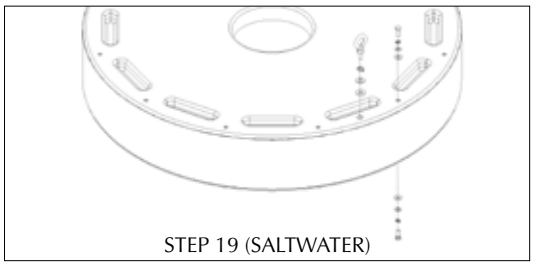
1. Remove the lower pump from its box.
2. Pull the motor lead completely out of the lower tube.
3. Inspect the motor lead and connector for any shipping damage.
4. Manually spin the propeller/impeller to make sure there is no rubbing on the shroud/diffuser. **BE CAREFUL OF SHARP EDGES.**
5. Remove the suction screen and plug, upper tube, head and hardware package from the box. If an extension tube is being used with this unit, see the instructions for attaching extensions tubes (page 3) and skip to step 11.
6. Remove the (3) three round head screws from the lower motor support. do not remove the (3) three phillips head screws.
7. Remove the blue cap from the connector on the motor lead.
8. Put the connector through the hole in the bottom of the suction screen. Replace the cap on the connector to protect the connector from damage.
9. Slide the suction screen onto the lower tube and replace the bolts from step 6. The suction screen should overlap the lower tube 75-90mm (3" to 3.5").
10. Pull the motor lead out of the suction screen as far as it will go. Place the suction screen plug on the motor lead with the tapered end towards the suction screen. Push the plug into place in the hole in the bottom of the suction screen.
11. Verify that the flow straightener is attached in the upper tube if the nozzle ordered with the unit requires one. See page 5 for nozzles that require a flow straightener.
12. Remove the (3) three screws/bolts from the shroud/diffuser on the lower pump.
13. Slide the larger end of the upper tube over the shroud/diffuser, lining up the holes. Replace the hardware.
14. Remove the float from its box.
15. Slide the float over the upper tube, flat side of float toward the lower pump, lining up the keyway in the center of the float with the key on the upper tube.
16. Open the hardware package and remove the (2) two large eyebolts. The eybolts need the hex nut screwed all the way on with the lock washer next and the flat washer last.

    If this is a saltwater unit, the (2) two large rubber washers from the hardware package are used after the flat washers. These eyebolts are screwed into the bottom (flat side) of the float at the large threaded inserts. The remaining hardware is used for attaching weights. See flotation, page 13.
17. Remove the (3) three bolts with cap nuts and lock washers from the bottom holes in the head. See diagram of head with bolt/screw positions at right.
18. Slide the head over the end of the upper tube, lining up the holes. Replace the hardware with the head of the bolt on the inside of the upper tube and the lock washer and cap nut on the outside of the head.
19. **If this is a saltwater unit,** all of the threaded inserts in the float need to be plugged with the hardware provided. If the unit has lights, attach the brackets first (page 8) with a rubber washer between the bracket and the float. Plug any remaining inserts with the weight pins or the 13mm (1/2") screws, lock washers, flat washers and rubber washers. The rubber washer always goes between the insert and the hardware.
20. The float has 12 finger pockets molded into the underside of the float for lifting and carrying the assembled unit.
21. See the nozzle and light set instructions for attaching these to the unit. The Torrent does not require a nozzle.



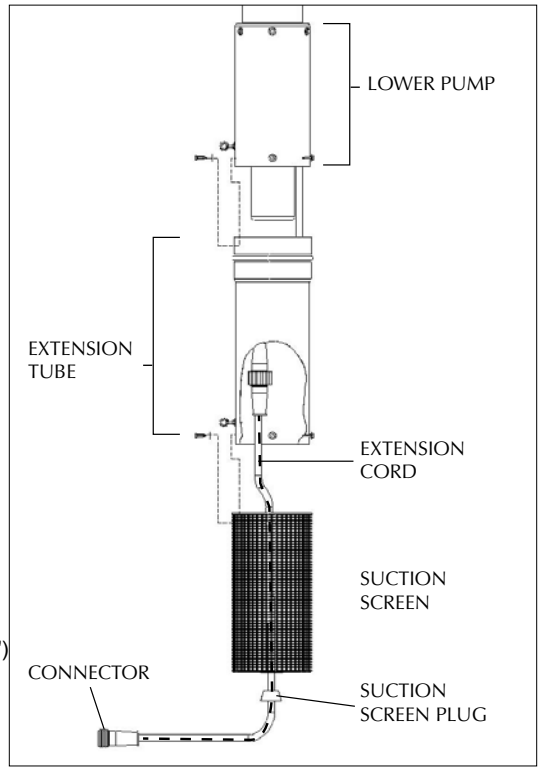


STEP 17 & 18

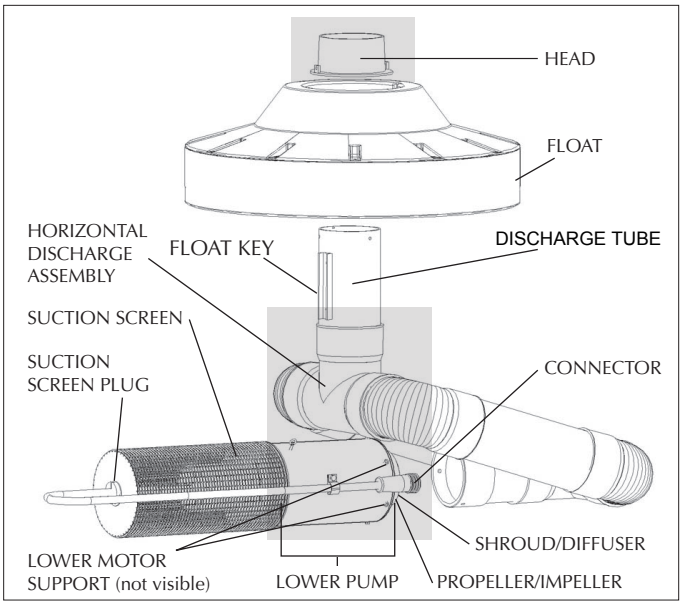

STEP 19 (SALTWATER)

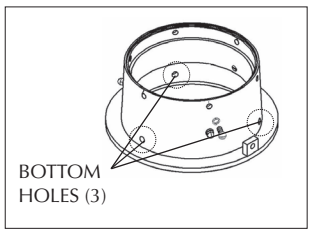
OPTIONAL EXTENSION TUBE INSTALLATION

1. Attach the extension cord (packaged with the extension tube) to the motor lead on the lower pump. If you are attaching more than one extension tube to the unit, multiple extension cords are used, one for each extension tube.
2. Remove the (8) eight self-tapping screws from the extension tube. ((4) Four at each end).
3. Lay the extension tube on the ground in line with the unit, bell end toward the unit.
4. Feed the extension cord thru the extension tube.
5. Slide the bell end of the extension tube over the lower tube of the unit until it is touching the (3) three bolts. Make sure the holes for the self-tapping screws are not lined up with any of the (6) six bolts in the lower tube.
6. Using a 7/32" drill bit, drill thru the (4) four holes in the bell end to create (4) four holes in the lower tube. Use caution not to damage the motor lead. Reattach the self-tapping screws.
7. Repeat steps #2-#6 for any additional extension tubes, sliding the bell end onto the extension tubes as far as it will go.
8. Lay the suction screen on the ground in line with the last extension tube.
9. Feed the extension cord thru the hole in the bottom plate of the suction screen. Put the suction screen plug on the cord.
10. Slide the suction screen onto the extension tube approximately 75-90mm (3" to 3.5") Reattach the self-tapping screws.
11. Insert the plug into the hole in the suction screen.
12. Attach the pump cord to the extension cord.

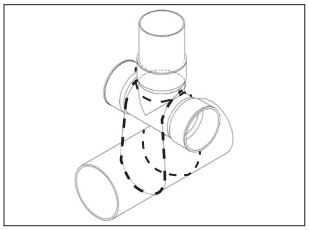


SELECT SERIES
HORIZONTAL DISPLAY AERATOR, FOUNTAIN AND TORRENT ASSEMBLY

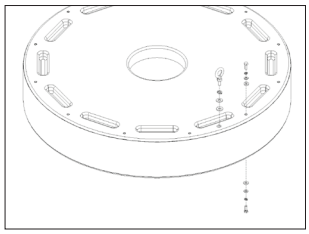




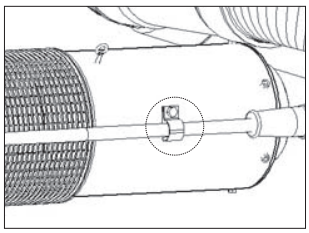
STEP 18



TWO BAND CLAMPS



STEP 18 & 19 (SALTWATER)



CLAMP

1. Remove the lower pump from the box.
2. Pull the motor lead completely out of the lower tube.
3. Inspect the motor lead and connectors for any shipping damage.
4. Manually spin the propeller / impeller tomake sure there is no rubbing on the shroud/diffuser. **BE CAREFUL OF SHARP EDGES**
5. Remove the suction screen, screen plug and hardware from the box.
6. Remove the (3) three round head screws from the lower motor support. Do not remove the (3) three phillips head screws.
7. Remove the blue cap from the connector on the motor lead.
8. Put the connector through the hole in the bottom of the suction screen. Replace the cap on the connector to protect if from damage.
9. Slide the suction screen onto the lower tube and replace the bolts from step 6. The suction screen should overlap the lower tube 75-90 mm (3" to 3.5").
10. Pull the motor lead out of the suction screen as far as it will go. Place the suction screen plug on the motor lead with the tapered end toward the suction screen. Push the plug into place in the hole on the bottom of the suction screen.
11. Remove the hoizontal discharge assembly from the box.
12. Remove the (3) three screws from the shroud/diffuser on the lower pump.
13. Slide the horizontal discharge assembly over the shroud/diffuser, lining up the holes. Replace the hardware.
14. Attach the two band clamps to the unit. See two band clamp diagram.
    a. The first band clamp goes under the lower pump in front of the vertical tube of the discharge assembly. Bring the two ends of the band clamp up in front of the discharge and around to the back of the vertical tube. Tighten the band clamp.
    b. The second band clamp goes under the lower pump behind the vertical tube of the discharge assembly. Bring the two ends of the band clamp up behind the discharge and around to the front of the vertical tube. Tighten the band clamp.
15. Remove the float from the box.
16. Slide the float over the discharge tube, flat side of float toward the lower pump, lining up the keyway in the center of the float with the key on the discharge.
17. Open the hardware package that was removed from the box with the suction screen and remove the (2) two large eyebolts. The eyebolts need the hex nut screwed all the way on twith the lock washer next and the flat washer last.

    For a saltwater unit, the two large rubber washers from the hardware package are used after the flat washers. These eyebolts are screwed into the bottom (flat side) of the float at the large threaded inserts. The remaining hardware is used for attaching weights, see the weight installation page.
18. Remove the (3) three bolts with cap nuts and lock washers from the bottom holes in the head. See diagram of head with bolt/screw positions above.
19. Slide the head over the end of the upper tube in the horizontal discharge lining up the holes. Replace the hardware with the head of the bolt on the inside of the upper tube and the lock washer and cap nut on the outside of the head.

    For a saltwater unit, all of the threaded inserts in the float need to be plugged with the hardware provided. If the unit has lights, attach the brackets first (page 8) with a rubber washer between the bracket and the float. Plug any remaining inserts with the weight pins or the 13mm screws, lock washers, flat washers and rubber washers. The rubber washer always goes between the insert and the hardware.
20. Attach the motor lead thru the clamp in line with the center of the nozzle assembly and at mid-point of the lower tube on the right side when viewed from the suction screen end. There is also a clamp on the left side for the light cord. See diagram above.
21. See the nozzle, cord and light set instructions for attaching these to the unit. The Torrent and Cascade do not require a nozzle.

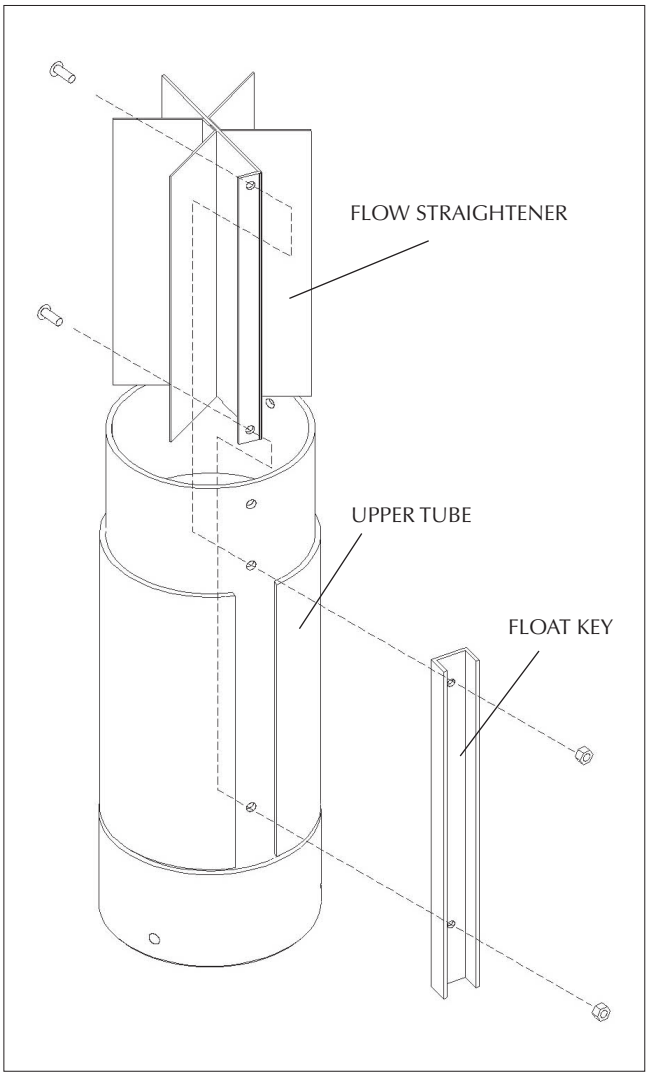
NOZZLES

Locate your nozzle in the table below and follow the instructions on the referenced page.

For Select Series nozzles, be sure the flow straightener is in the upper tube on vertical units with the exception of the Tornado and Full Geyser nozzles that do not require flow straighteners. Select Series horizontal units do not require flow straighteners.

Display Aerator nozzles and Fountain nozzles are not interchangeable.

DISPLAY AERATOR NOZZLES	NOZZLE TYPE
Cluster Arch	Type 1
Crown Gusher	Type 1
Daffodil	Type 2
Delmar	Type 1
Double Arch	Type 1
Horizontal Tornado	Type 2
Lily	Type 2
Pentalator	Type 1
Quad	Type 1
Scepter	Type 1
Spider & Arch	Type 1
Super Lily	Type 2
Tornado	Type 1
Torrent	Type 1
Trillium	Type 1
Triple Tier	Type 2
Weeping Willow	Type 1
Winter Scepter	Type 1

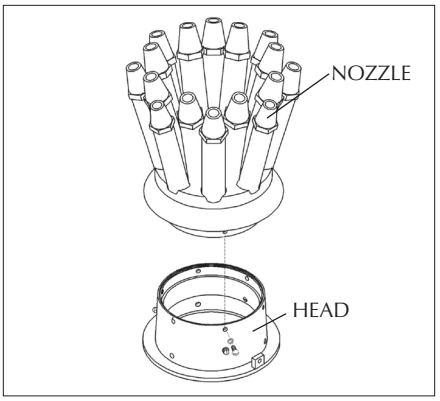


DISPLAY FOUNTAIN NOZZLES	NOZZLE TYPE
Buckingham	Type 1
Flare & Sky Geyser	Type 4
Fleur de Lis	Type 1
Full Geyser	Type 3
Majestic	Type 1
Shooting Star	Type 1
Sky Geyser	Type 1
Spoke & Trellis	Type 1
Tiara	Type 1
Trellis	Type 1
Trellis & Sky Geyser	Type 1

NOZZLES

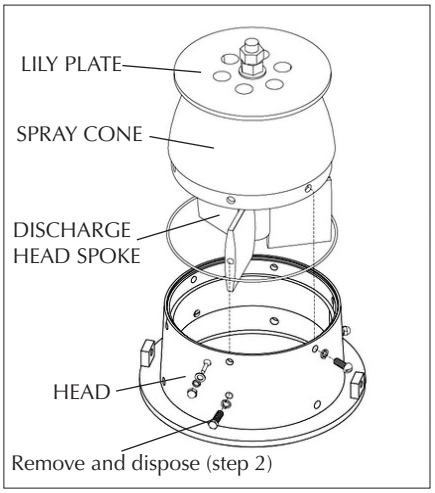
NOZZLE TYPE 1 – MULTIPLE NOZZLE CASTING/SPRAY CONE

1. Remove the screws and lock washers from the nozzle.
2. Open the packet of petroleum jelly and apply it generously to the O-Ring on the flange of the nozzle.
3. Slide the flange of the nozzle into the head, lining up the holes.
4. Re-attach the hardware removed in step #1.



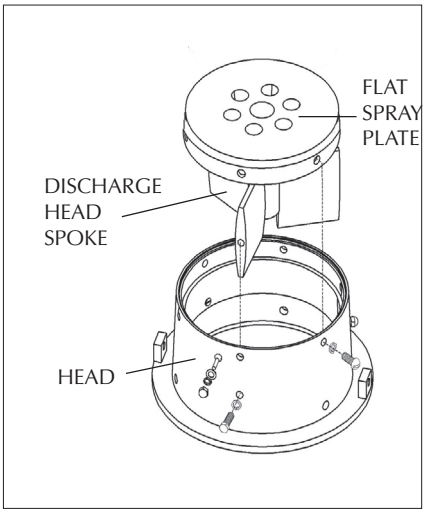
NOZZLE TYPE 2 – SPRAY CONE WITH DISCHARGE HEAD SPOKE

1. Remove the screws and lock washers from the spray cone; and the hex-head bolts, lock washers, and flat washers from the discharge head spoke.
2. Remove the hardware in the center row of holes in the head using a 8 mm wrench on the cap nut. This hardware will not be reused.
3. Open the packet of petroleum jelly and apply it generously to the O-Ring on the flange of the nozzle.
4. Holding the nozzle by the tip of the threaded rod, line up the threaded holes of the discharge head spoke with the center row of holes in the head. Slide the discharge head spoke inside the head and attach with the hex-head bolts, lock washers, and flat washers removed in step #1.
5. Slide the flange of the spray cone into the head, lining up the holes.
6. Re-attach the screws and lock washers removed in step #1.
7. The nozzle has been pre-set at the factory, so there is no reason to adjust the nuts on the center threaded rod



NOZZLE TYPE 3 – FLAT SPRAY PLATE WITH DISCHARGE HEAD SPOKE

1. Remove the screws and lock washers from the threaded holes in the flat spray plate and the hex-head bolts, lock washers, and flat washers from the discharge head spoke.
2. Remove the hardware in the center row of holes in the head using a 8 mm wrench on the cap nut. This hardware will not be reused.
3. Open the packet of petroleum jelly and apply it generously to the O-Ring on the flange of the flat spray plate.
4. Line up the threaded holes of the discharge head spoke with the center row of holes in the head. Slide the discharge head spoke inside the head and attach with the hex-head bolts, lock washers, and flat washers removed in step #1.
5. Slide the flange of the flat spray plate into the head, lining up the holes.
6. Re-attach the screws and lock washers removed in step #1.

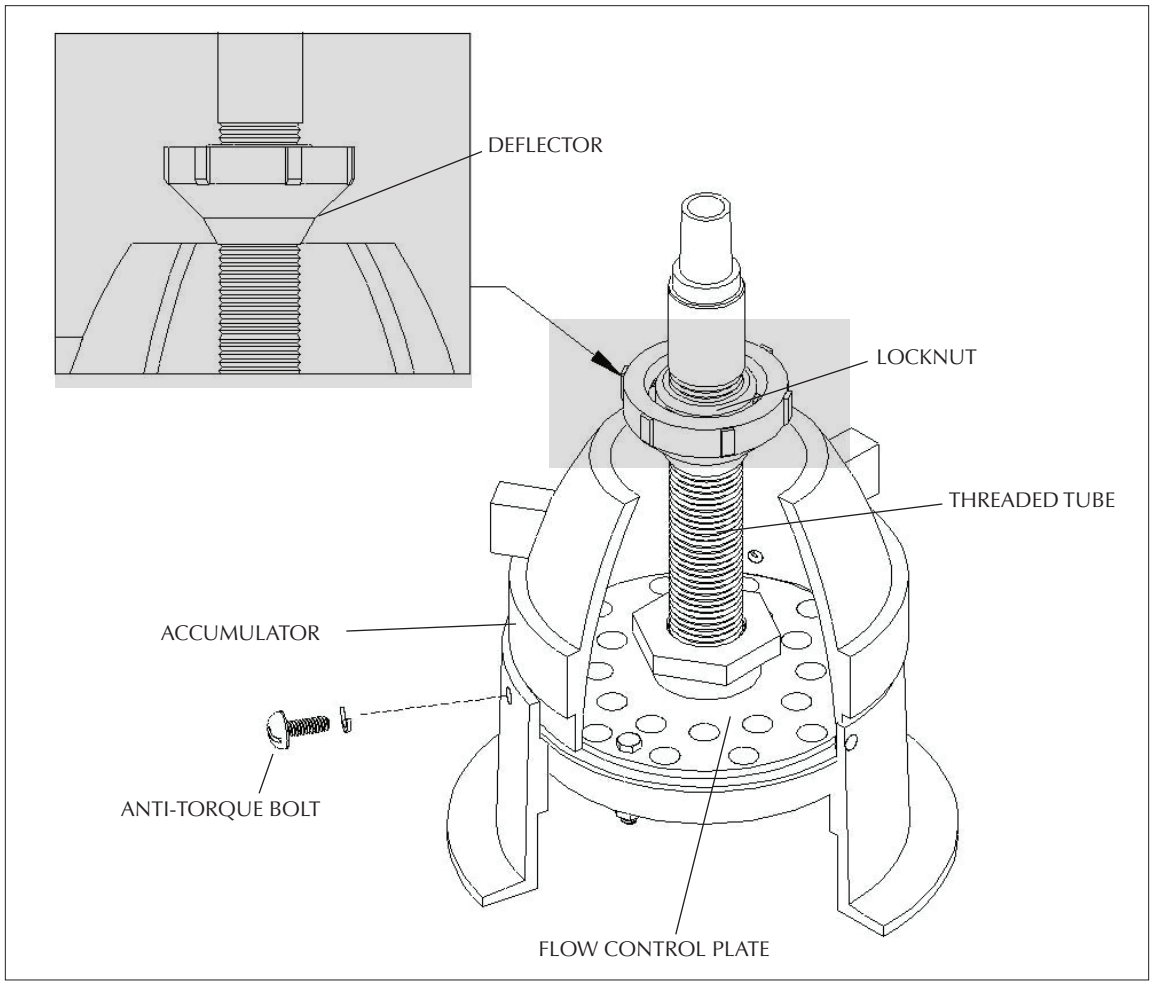


NOZZLES

NOZZLE TYPE 4 – FLARE AND SKY GEYSER

1. Remove the screws and lock washers from the nozzle.
2. Open the packet of petroleum jelly and apply it generously to the O-Ring on the flange of the nozzle.
3. Slide the flange of the nozzle into the top of the head, lining up the holes.
4. Re-attach the hardware removed in step #1.

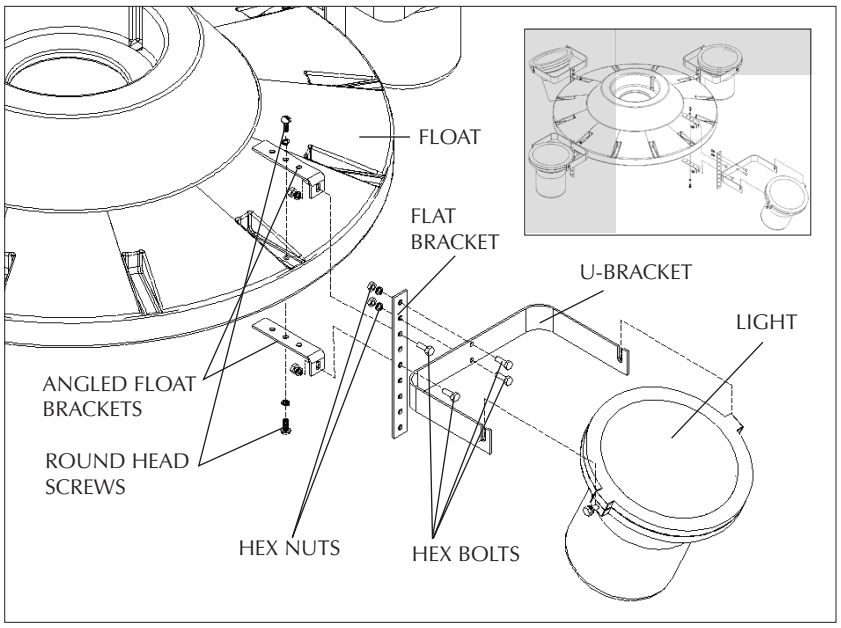
Nozzles are factory pre-set.



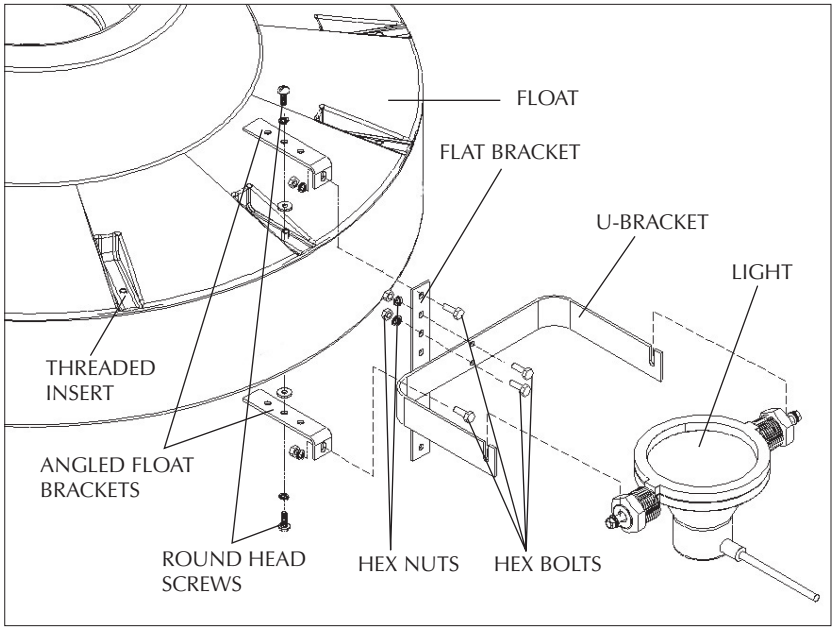
LIGHT SET ASSEMBLY
SELECT SERIES FRESHWATER & SALTWATER

1. Open the light set box and remove the plastic bag containing brackets and hardware. The package contains one straight float bracket, two angled float brackets, four hex-head bolts, two round head screws, four lock washers, and four hex nuts for each light in the set.
2. Attach one of the angled float brackets to the top of the float at any one of the threaded inserts. Place a lock washer on a round head screw and put the bolt through the middle hole or the hole furthest from the angle on the bracket. **For saltwater units,** place a small rubber washer from the float hardware package onto the round head screw. Thread the round head screw into the insert and tighten. Repeat this step for each light in the set, placing the brackets symmetrically around the float.
3. Attach the remaining angled float brackets to the bottom of the float directly below the brackets attached in step 2, using the same hardware as in step 2. If you used the middle hole on the brackets in step 2, use the same hole in step 3.
4. Attach a flat float bracket to each set of angled brackets using a hex-head bolt, lock washer, and hex nut at each angled bracket.
5. Take the light canisters with light brackets attached out of the box. Stretch out the light leads to make sure they are not tangled.
6. *This step must be done at the shoreline or after the unit is floating.* ***DO NOT*** *transport the unit to the installation site with the lights attached.* Remove the two hex bolts, two lock washers and two hex nuts from the light bracket. Use this hardware to attach the light bracket(s) to the flat float bracket(s). The bracket(s) can be adjusted to position the light(s) at various angles. **To avoid overheating and damage to the lights, the fixtures must be placed below the water surface.**
7. **For saltwater units,** plug the remaining threaded inserts on the float with the hardware from the float hardware package by placing a lock washer, then flat washer, and then a rubber washer onto the screw and thread into the insert. If weight pins are used, a rubber washer must go between the flat washer and float insert.
8. The unit is ready to be floated after the cable connection(s) have been made.

SELECT SERIES FRESHWATER



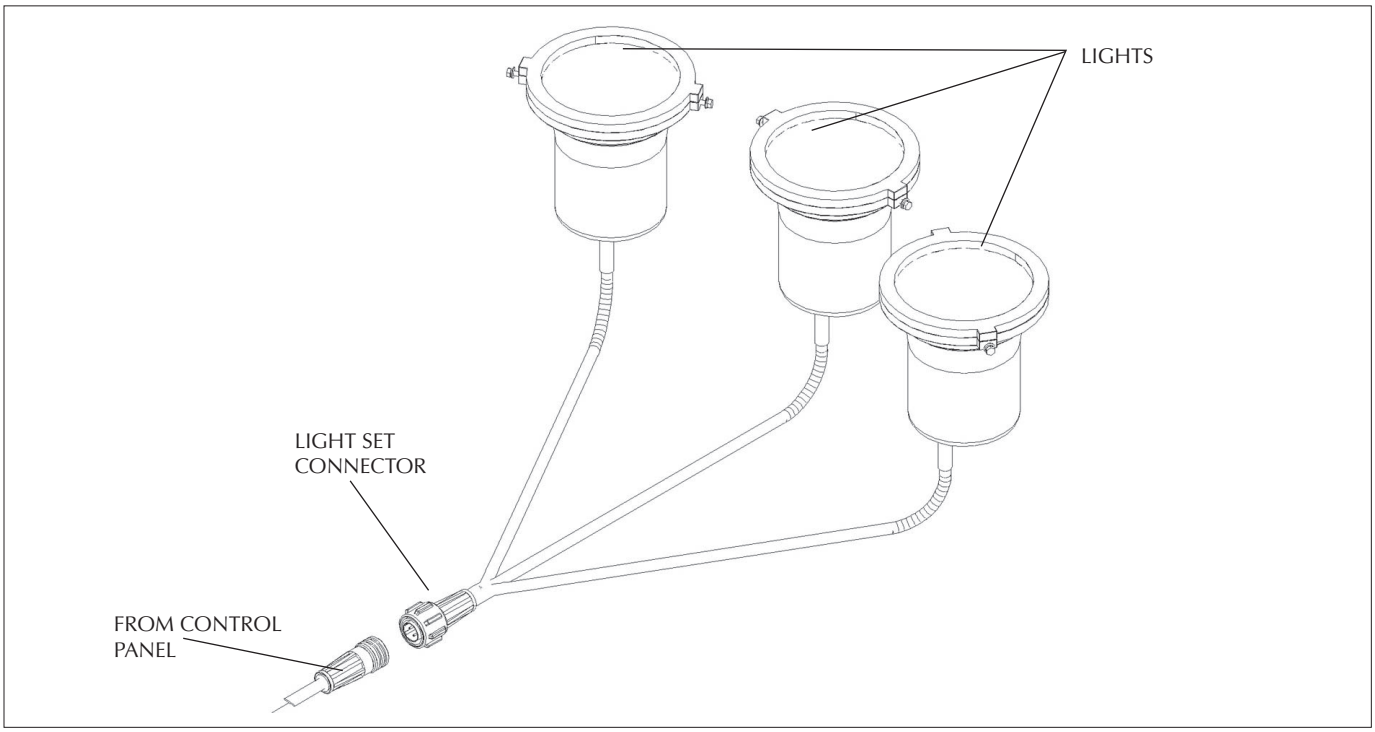
SELECT SERIES SALTWATER



LIGHT CABLE ASSEMBLY

3-WIRE LIGHT CORD (one light set)

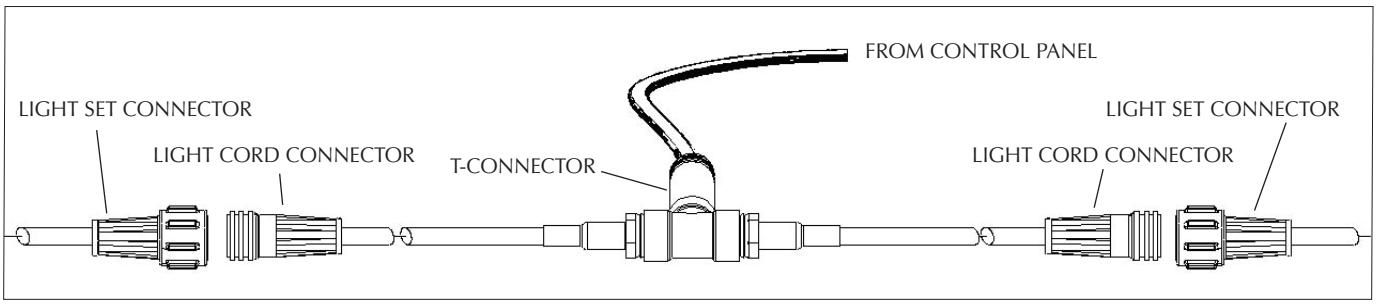
Join and hand tighten connectors



T-CONNECTOR LIGHT CABLE (two light sets)

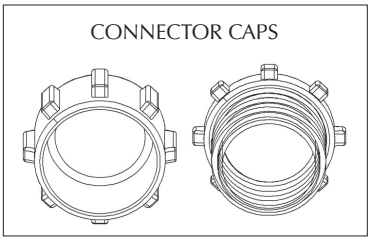
The T-Conector Light cable has two 3-wire connectors to one 4-wire cable. One of the two connectors is marked with red tape. The one without tape gets its power from the black terminal in the control panel. The two connectors share the ground and neutral line.

Join connectors and hand tighten.



CONNECTORS

CONNECTOR CAPS

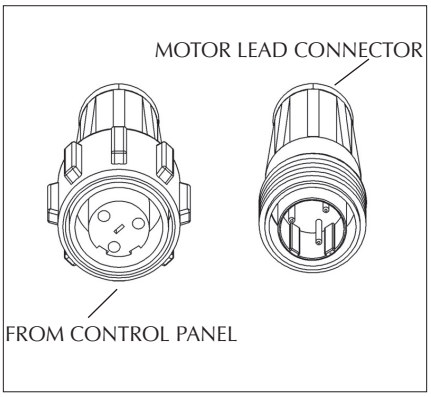


Blue connector caps are used to protect the connectors during handling and to keep them dry if submerged while unconnected to mating connectors.

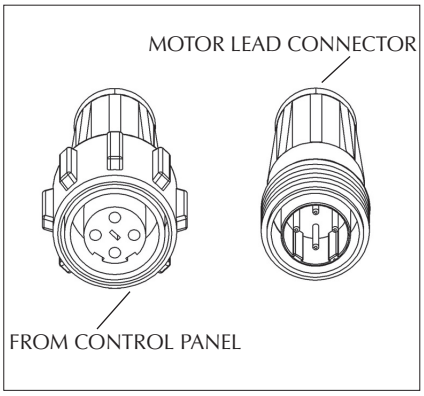
CONNECTOR IDENTIFICATION

WARNING: Do not use grease on connectors. No tools are required for tightening.

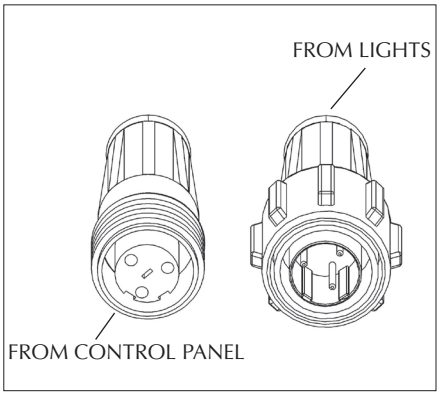
3-WIRE PUMP CABLE



4-WIRE PUMP CABLE

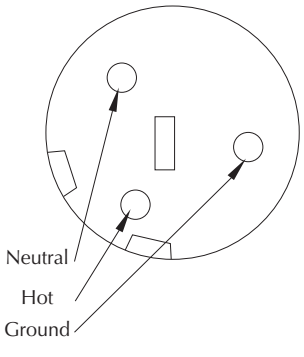


LIGHT CABLE

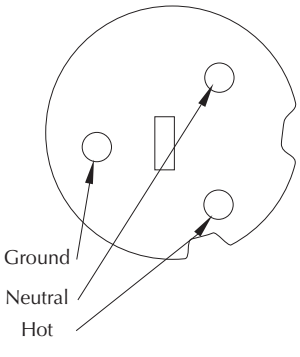


WIRE IDENTIFICATION

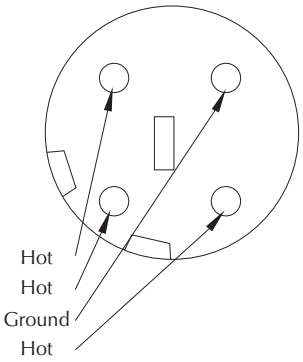
2-Wire with Ground
Motor Lead Connector
& Light Set Connector



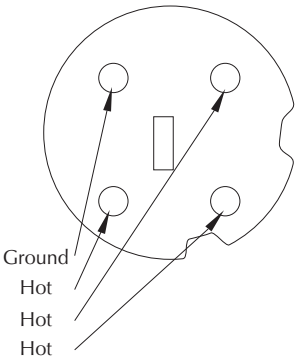
2-Wire with Ground
Pump Cable Connector
& Light Cable Connector



3-Wire with Ground
Motor Lead Connector



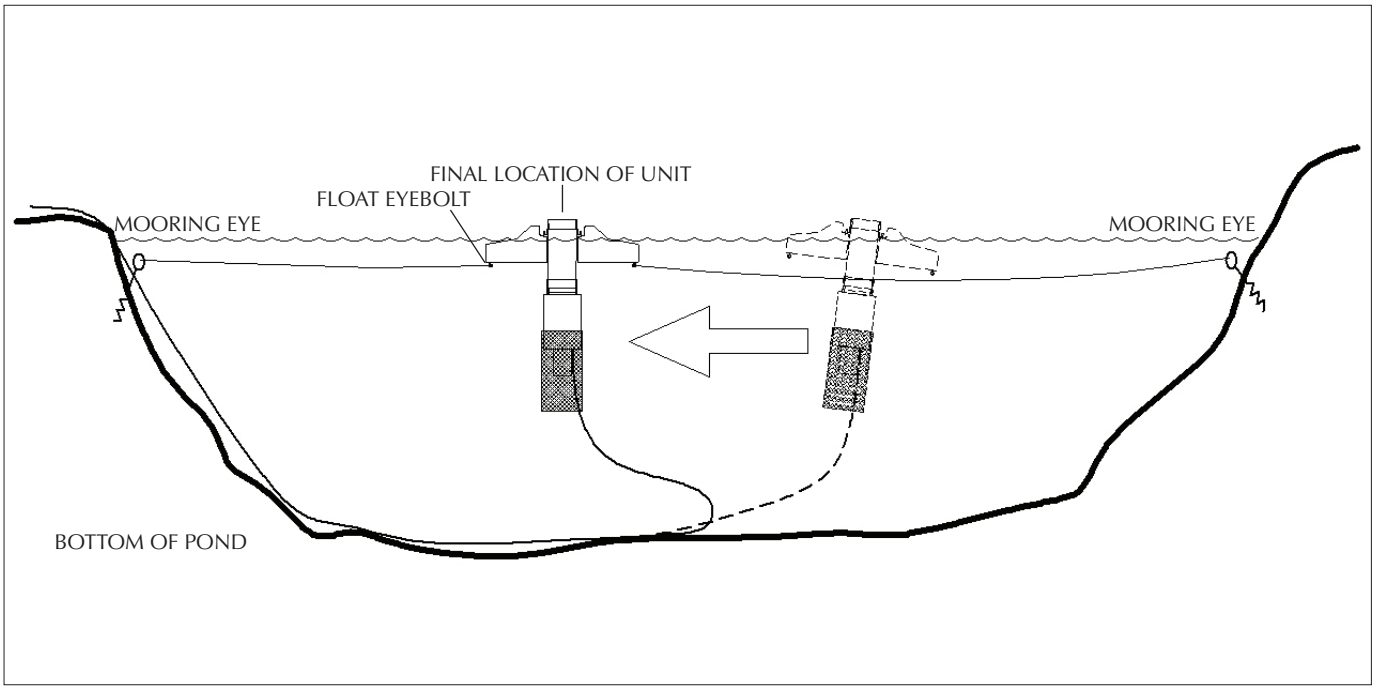
3-Wire with Ground
Pump Cable Connector



INSTALLATION
SELECT SERIES LAUNCHING

MOORING - FLOATING UNITS

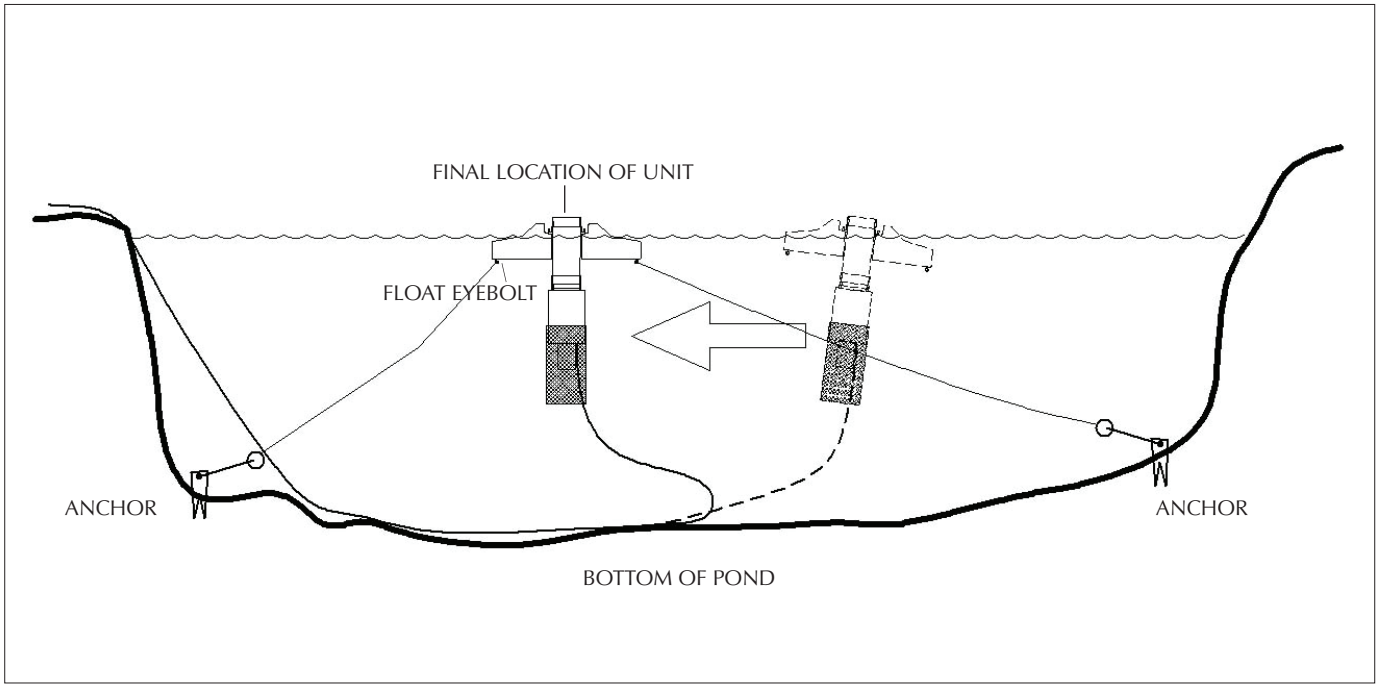
1. Tie the mooring line to the eyebolts on the float.
2. Pull the unit past its final location by a distance at least equal to the depth of the pond at the desired final location.
3. Bring the unit back to the final position. There should be enough slack on the electric cord to allow it to hang straight down without tension on the unit causing it to tilt the spray pattern.
4. Hold the position of the unit in the water by tying the mooring lines to the mooring stakes on shore.
5. Motor torque causes the unit to try to rotate. Upon startup, watch to make sure the unit cannot rotate more than 1/3 of a turn. If it is allowed to rotate, the electric cord can wrap around the unit very tightly and cause damage.
6. Never allow long lengths of rope to float near the intake of the unit where it can be pulled in and entangled in the propeller or impeller.



INSTALLATION
SELECT SERIES LAUNCHING

ANCHORING - FLOATING UNITS

1. Tie the anchoring rope to the eyebolts on the float. Use a rope at least three times the depth and be sure it has no slack.
2. Pull the unit past its final location by a distance at least equal to the depth of the pond at the desired final location.
3. Bring the unit back to the final position. There should be enough slack on the electric cord to allow it to hang straight down without tension on the unit causing it to tilt the spray pattern.
4. Tie mushroom anchors to the anchor lines. Use multiple anchors if the surface is smooth or slippery. Heavy or multiple concrete blocks are suitable for soft bottoms where they will sink into the mud, but they are inadequate on hard, smooth, slippery or sloping bottoms.
5. Anchors should be set out at a MAXIMUM of 45 degrees to the surface of the water. It is preferred to have the anchor line as parallel to the surface as possible. They should be on opposite sides of the float. To ensure the unit remains very close to certain position, a third (or fourth) anchor line can be used.
6. Be sure that the electrical cord has slack, hangs straight down from the unit and is not tangled with the anchor lines.
7. The anchor lines must be kept tight enough to prevent the unit from rotating due to motor torque. If the water level changes or the anchor lines otherwise become slack, the unit will rotate and twist the electrical cord causing cord damage.



FLOTATION

SELECT SERIES

Diagram 1 below shows the optimum floating depth for an Aqua Control Unit. The shaded area of the diagram shows the least amount of float and nozzle possible. The chart shows the amount of weight that needs to be added to sink the unit to the optimum depth. This is an optional step. The unit will operate just the same without adding any weights, but more of the float will be showing. The only time weight has to be added is to sink the unit far enough for the lights to be 50 mm underwater while operating. Remember that the unit must be running to decide how much weight has to be added. If you add weights to float at the optimum depth while the unit is off, the thrust of the nozzle could sink the unit.

After turning the unit on, estimate the floating depth from diagram 1 below. Refer to the chart to determine the required weights. The chart also gives recommended combinations of weights to accomplish the desired weight.

Attach the weights to the top of the float using the hardware provided in the float hardware package. There are six 57 mm long bolts with a 25 mm diameter flat washer and a hex nut on each bolt. Slide the flat washer up to the head of the bolt and put the threaded end of the bolt through the center of the weight. Thread the bolt into any open insert on the top side of the float. The 25 mm diameter flat washer keeps the weight from sliding off the bolt. The weights must be distributed evenly around the float to maintain level flotation

FLOAT VS. WEIGHT					
DEPTH WHEN RUNNING	TOTAL WEIGHT REQUIRED	NUMBER OF WEIGHTS			
		2	3	4	6
DEPTH 1	7 kg	-	5	-	-
DEPTH 2	9 kg	10	-	2.5	-
DEPTH 3	14 kg	-	10	2x10+2x5	5
DEPTH 4	18 kg	-	-	10	-
DEPTH 5	23 kg	-	-	-	4x10+2x7.5

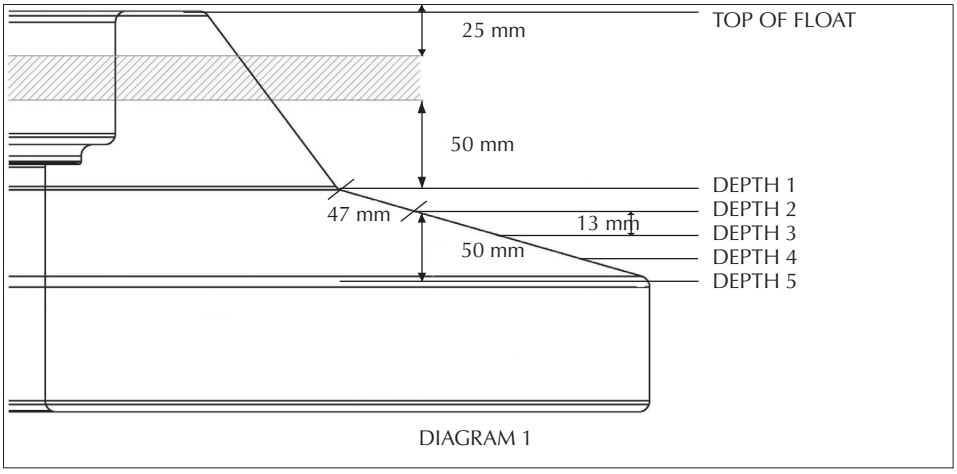


DIAGRAM 1

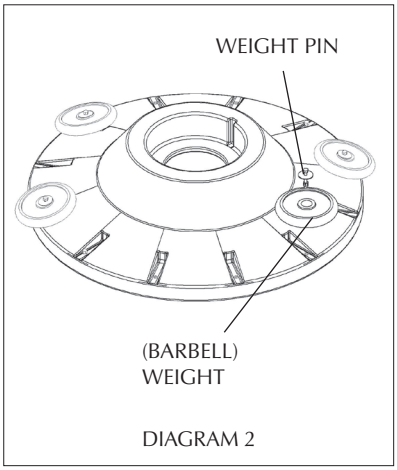


DIAGRAM 2

MAINTENANCE

GENERAL

The Aqua Control products do not require yearly maintenance of the motors or pumps. The motors should never be opened for maintenance and doing so will void the factory warranty.

SUCTION SCREEN CLEANING: Routine cleaning of the suction screen is required to ensure adequate water flow past the motor for cooling. If the screen becomes fouled with debris, the motor can overheat and the spray pattern can be diminished. The mooring and anchoring installation instructions suggest a trip rope for the vertical units so the suction screen can be lifted to the surface of the water for cleaning. The suction screens on the horizontal units are close to the water's surface to make them easy to reach. A wire brush can be used to remove any debris.

LIGHT LENS CLEANING: The light lenses should be cleaned frequently to prevent algae and dirt buildup. Buildup reduces light and can cause over heating. If rock guards are used on the lights, the lights should be monitored more frequently for algae buildup.

FREEZING WEATHER REMOVAL

1. Disconnect the motor from the cable.
2. Store in a heated area that will not freeze.
3. Store with the shaft end of the motor inclined up. If a vertical unit is resting on the float and on the bottom of the lower tube. The angle will be satisfactory. Do not rest it on the lights or light brackets.
4. The underwater cable should not be left on the ground since it could easily be damaged when brittle from cold weather. Re-immerse the cable so it is below the ice and away from shore traffic.
5. Protect the cable connector in the water by using the winter cap that came with the unit.

WINTER OPERATION

SAFETY ADVISORY! If winter activities occur on the lake, operation of a unit during the winter will compromise the thickness and stability of the ice that develops around the perimeter of the open water and could create a safety hazard for anyone on the ice.

WARRANTY DISCLAIMER: Many variables must be considered before deciding to operate a Select Series Vertical Aerator or Titan Fountain (never a Select Series Fountain or Horizontal Aerator) during the winter. These variables include but are not limited to the depth of the lake, overall size of the lake, climate variation, predictability of cold, and loss of power in winter conditions. Aqua Control does not warrant any damage incurred during winter operation, even if the following guidelines are followed.

MARGINALLY FREEZING WEATHER

If the surface of the pond does not normally freeze solid then continued winter operation of either aerators or fountains is seldom a problem.

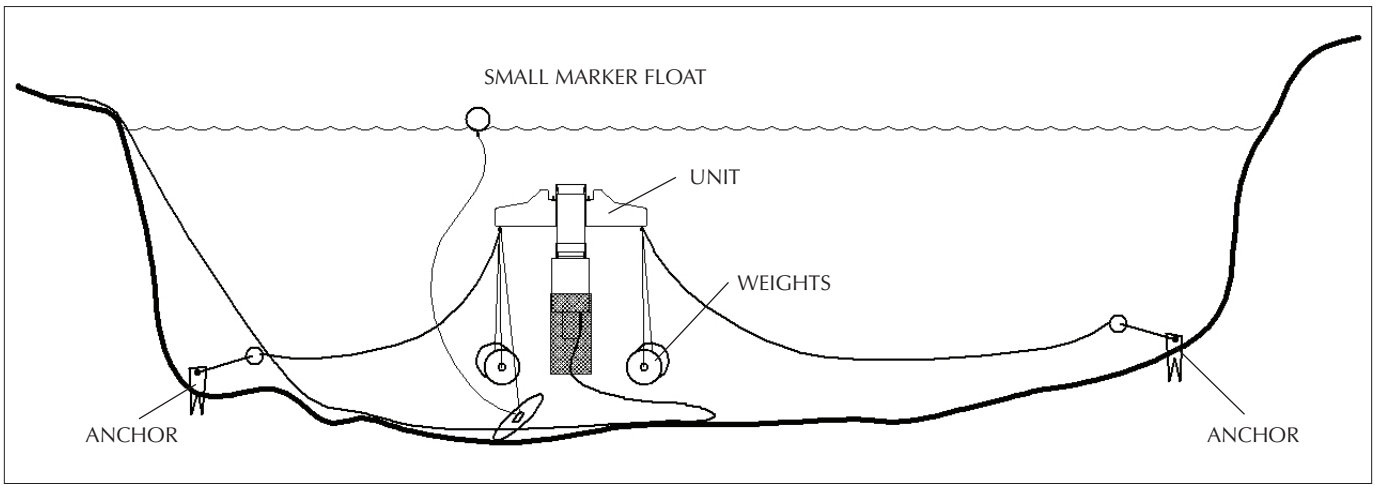
1. During a below freezing period, it may be necessary to shut the unit off to prevent ice accumulation on the float, which could cause the unit to tip. If the unit tips and has lights, some of the lights could come out of the water, possibly allowing them to break or leak from overheating. It might also allow the light gasket to freeze, allowing leakage.

2. To be certain that operation with a nozzle does not create a large mound of ice which could cause the aerator to roll over and result in motor or light damage, simply remove the nozzle and let the water gush out to provide circulation of the warmer deep water up to the surface.

MAINTENANCE

SINKING

This procedure is the best and simplest method of winter storage, if a boat is available. By sinking the unit, the motor has no possibility of losing some of its internal motor fluid, it cannot freeze, the unit is not damaged by handling, seals do not dry out and it saves the work of removing and re-installing the unit. To sink a unit for winter storage, the pond depth must be 1.2 m to 1.83 m plus the height of the unit itself. Get the minimum water depth from the Aqua Control brochure, add 1.2 m to 1.83 m plus the normal depth of ice on the pond. If the pond does not have sufficient depth, then sinking is not an option for winter storage. Any Aqua Control unit can be stored by sinking with enough depth in the pond.



1. Attach poly rope for retrieval. Use a rope that floats for finding and retrieving the unit. Attach a small marker float to the rope end if desired.
2. Determine how many inches of float are above the water when the unit is off. Use the information under flotation, page 12, to determine the amount of weight needed to sink the unit.
3. Weight-lifting weights are a convenient and economical source of such weight. Do not use concrete blocks as weights. They are bulky and weigh only about ½ their normal weight when in water.
4. Secure an 11 kg weight to each eyebolt on the float. Tie a rope thru the hole of one weight. Tie the other end of the rope to a float eyebolt or tie it to a snap hook and snap the hook over the eyebolt (the snap must fit over the 9mm diameter eye of the eyebolt.) Repeat for the other float eyebolt. The ropes must be long enough so that these weights hang down below the bottom of the unit. Attach a poly rope for retrieval. Use a rope that floats for finding and retrieving the unit. Attach a small marker flaot to the rope end if desired or if a non-floating rope is used.
5. Tie a weight to each end of 2 m rope. Wrap the center of the rope completely around the head and lower the weights alongside to just below the float. Keep the weights clear of lights or cord. These weights do not need to hang down past the lower tube.
6. Repeat until all the weights have been added. When the last weights are added, the assembly should gently sink until deepest weights rest on the bottom. The unit will then float upright in this position until pulled back up in the spring.
7. Spring retrieval will require very little effort since just enough weight has been added to sink the unit.
8. When properly submerged, the top of the unit should be at least 60 cm to 90 cm below the surface of the water so that it is out of the ice layer.
9. Be sure to follow the instructions so that the unit is not driven into the mud.