

CORALIFE®

SUPER SKIMMER™

NEEDLE-WHEEL SYSTEM TECHNOLOGY

INSTRUCTIONS

33000 (65G)

**Please read these instructions
in their entirety before attempting
to use this unit.**



SUPER SKIMMER™

NEEDLE-WHEEL SYSTEM TECHNOLOGY

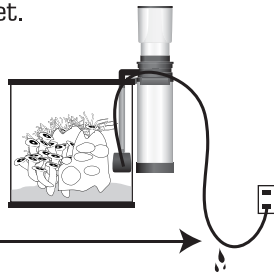
IMPORTANT SAFETY INSTRUCTIONS READ AND FOLLOW ALL SAFETY INSTRUCTIONS

CAUTION

1. Make sure to follow instructions in their entirety. Failure to follow these directions may damage unit and/or cause unit failure.
2. Do not connect pump power cord into a power source or outlet until all installation setup and connections are completed.

WARNING

1. Never connect the Coralife Super Skimmer to any power source while hands are wet.
2. Always unplug the unit from outlet or power source before installing, replacing parts or doing product maintenance.
3. Never allow pump to run dry. Always keep pump submerged during operation. Failure to keep pump submerged while in use may damage the unit and/or cause unit failure.
4. Always leave a drip-loop in the pump cord to prevent water from running down the length of the cord and reaching the power source or outlet.



Drip Loop

5. For added safety, the pump should be plugged into a grounded three-prong receptacle controlled by a GFI (Ground Fault Interrupter) circuit breaker.

PRE-INSTALLATION SETUP

NOTE: Prepare at least 5 gallons of make-up saltwater to replace water used by the Super Skimmer.

HANG-ON MOUNT PLACEMENT

1. Allow a minimum 6" clearance between the aquarium and the wall.

NOTE: Hang-on mounting bracket for up to .75" tank mouldings.

2. Ensure that there is adequate unobstructed space for the needle-wheel pump inside the aquarium (8"L x 3"W x 4"H).

IN-SUMP PLACEMENT

1. Verify that there is adequate space for the super skimmer in/or outside of the sump (8"L x 9"W).
2. Allow a minimum 0.5" clearance between the stand and the top of the skimmer. **Make sure there is enough space to remove/slide the collection cup out of the sump.**

PARTS LIST 1.0

- ← Collection Cup Lid
- ← Collection Cup
- ← O-Ring
- ← Main Chamber
- ↑ 1 x - 0.75" Screw
- ↑ 3 x - 1.125" Screw
- ← Adjustment Valve
- ← Flexible Tubing (5")
- ← Flexible Tubing (1.5")
- ← Output Elbow
- ← Air-inlet Silencer with Tubing (0.25" I.D. clear)
- ← Venturi Chamber
- ← Debris Strainer
- ← Needle-wheel Pump
- ← Mounting Bracket J
- ← Mounting Bracket F
- ← Sponge (Black)
- ← Filter Pad (White)
- ← Bubble-production Diffuser



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INSTALLATION SETUP

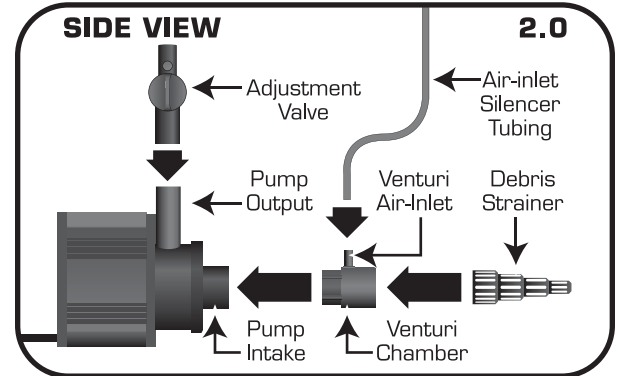
NEEDLE-WHEEL PUMP SETUP

SAFETY: Always disconnect needle-wheel pump from power supply before installing the Super Skimmer.

1. Set debris strainer into venturi chamber. (2.0)
2. Connect the air-inlet silencer tubing to venturi air-inlet.
3. Attach venturi chamber to pump intake of needle-wheel pump.

NOTE: Make sure venturi chamber is fully inserted into pump intake.

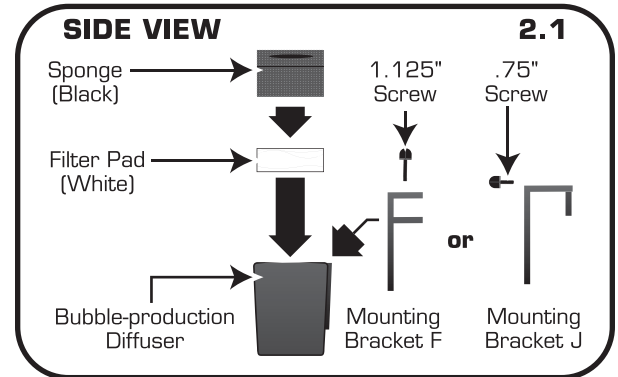
4. Attach adjustment valve onto pump output.



BUBBLE-PRODUCTION DIFFUSER SETUP

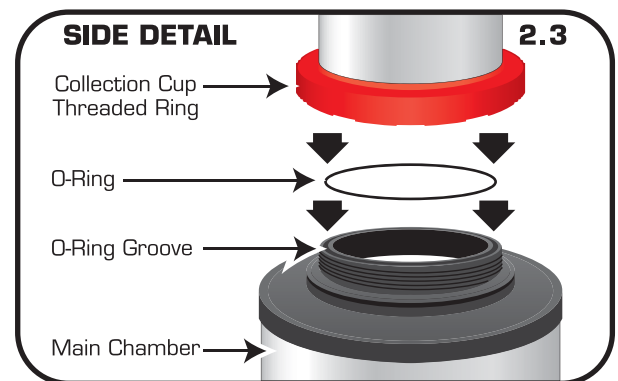
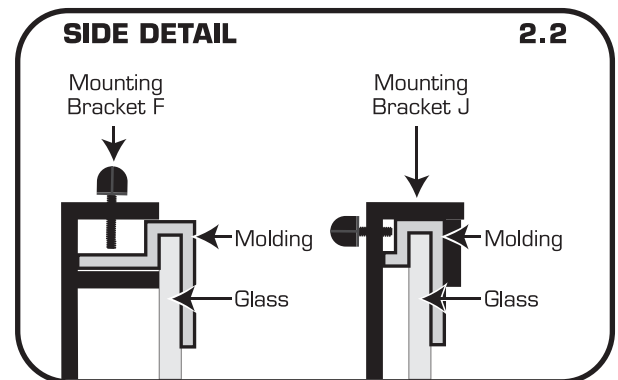
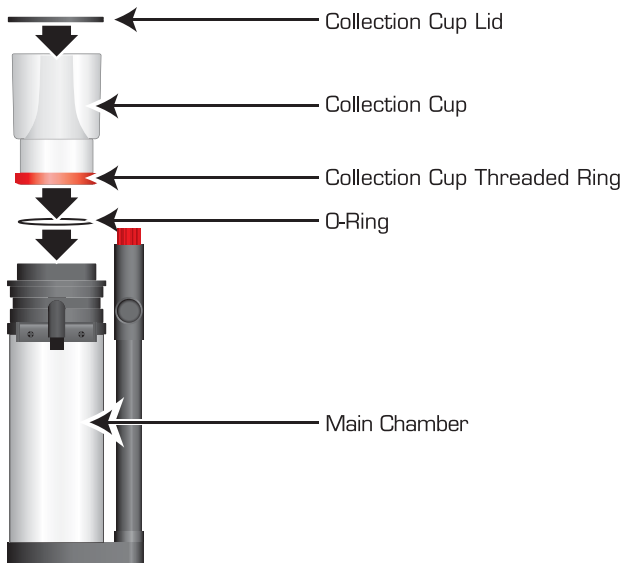
1. Load filter pad (white) into bubble-production diffuser. (2.1)
2. Place sponge (black) on top of filter pad (white).
3. Insert mounting bracket into the slot located at the back of the bubble-production diffuser.

NOTE: Identify the type of molding on aquarium or sump and select the correct mounting bracket. (2.2)



COLLECTION CUP SETUP

1. Attach the collection cup lid to collection cup.
2. Place o-ring into o-ring groove in top opening of main chamber. (2.3)
3. Align collection cup threaded ring with the top opening on main chamber.
4. Twist collection cup threaded ring clockwise and tighten. Make sure that the connection is secure between both the collection cup and main chamber.





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INSTALLATION SETUP

HANG-ON MOUNT INSTALLATION SETUP

NOTE: Saltwater may need to be added to the aquarium to replace water used by the super skimmer.

1. Attach flexible tubing (1.5") onto chamber intake. (3.0)
2. Attach needle-wheel pump assembly to flexible tubing.

NOTE: Make sure all tubing connections are secured.

3. Hang main chamber skimmer bracket at desired location on aquarium.

NOTE: Top of needle-wheel pump must be 3" - 4" max. below water line for proper bubble-production.

4. Make sure to place air-inlet silencer above water line.

WARNING: Do not submerge in water or obstruct airway passage through air-inlet silencer.

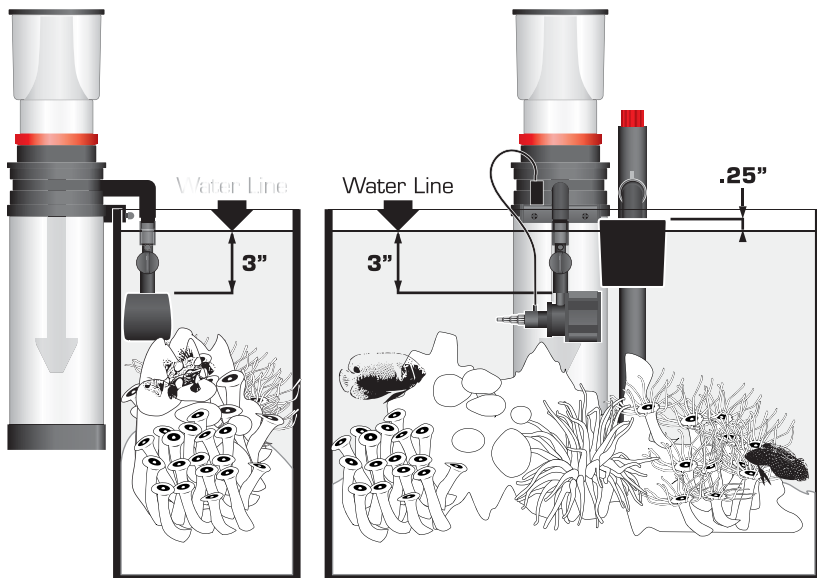
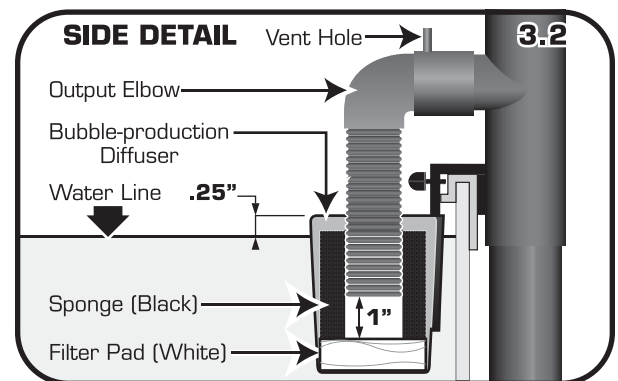
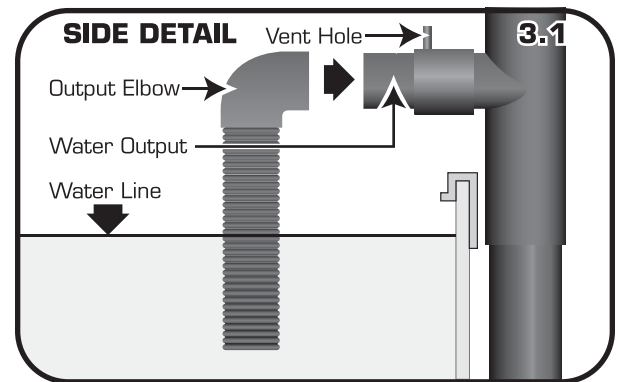
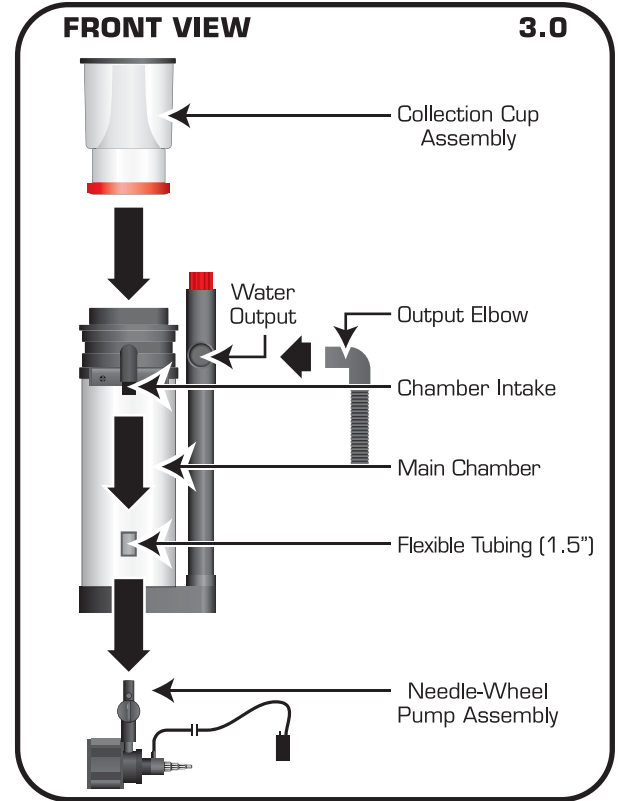
5. Attach output elbow onto water output. (3.1)
6. Attach bubble-production diffuser onto aquarium. (3.2)

NOTE: Adjust bubble-production diffuser mounting bracket. Top of bubble-production diffuser must be .25" min. above water line.

7. Insert the output elbow into bubble-production diffuser sponge (black). (3.2)

NOTE: Trim output elbow or adjust bubble-production diffuser height to allow a 1" min. space inside the sponge (black) to prevent micro-bubbles.

8. Tighten screws on main chamber skimmer bracket and bubble-production diffuser bracket.





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INSTALLATION SETUP

IN-SUMP INSTALLATION SETUP

NOTE: Saltwater may need to be added to the aquarium to replace water used by the Super Skimmer.

1. Attach flexible tubing (5") into chamber intake. (4.0)

NOTE: If sump water line exceeds 6" high, use flexible tubing (1.5")

2. Attach needle-wheel pump assembly to flexible tubing.

NOTE: Make sure all tubing connections are secured.

3. Place Super Skimmer inside/outside sump at desired location.

NOTE: Add saltwater to skimmer to prevent from floating in the sump.

NOTE: Top of needle-wheel pump must be 3" - 4" max. below water line for proper bubble-production.

4. Make sure to place air-inlet silencer above water line.

WARNING: Do not submerge in water or obstruct airway passage through air-inlet silencer.

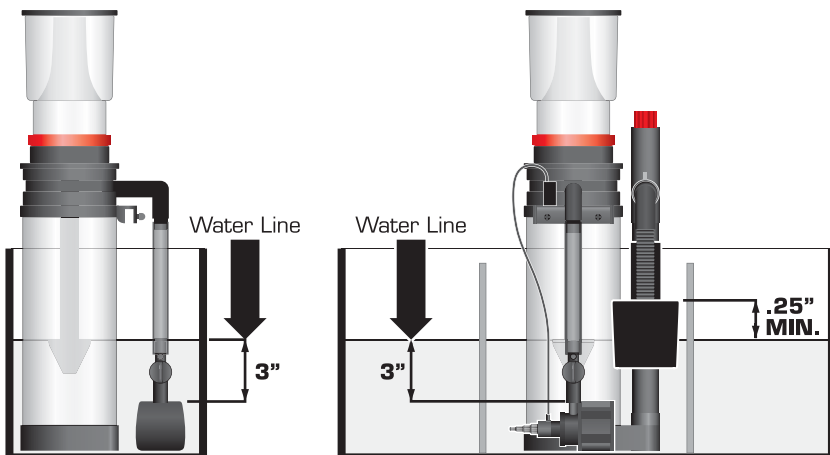
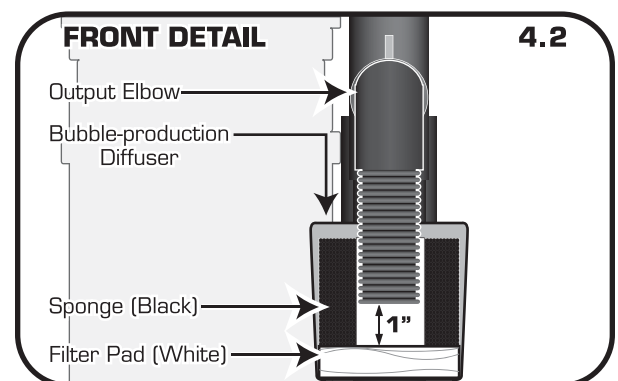
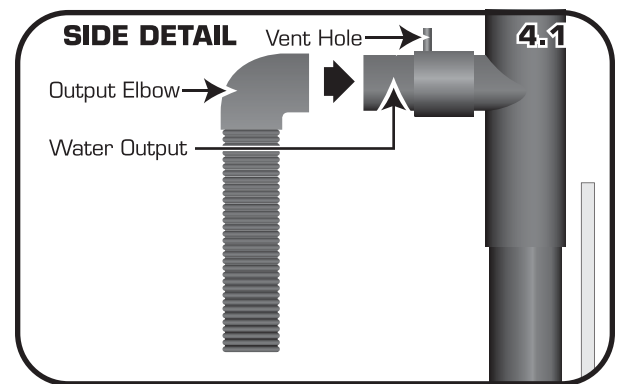
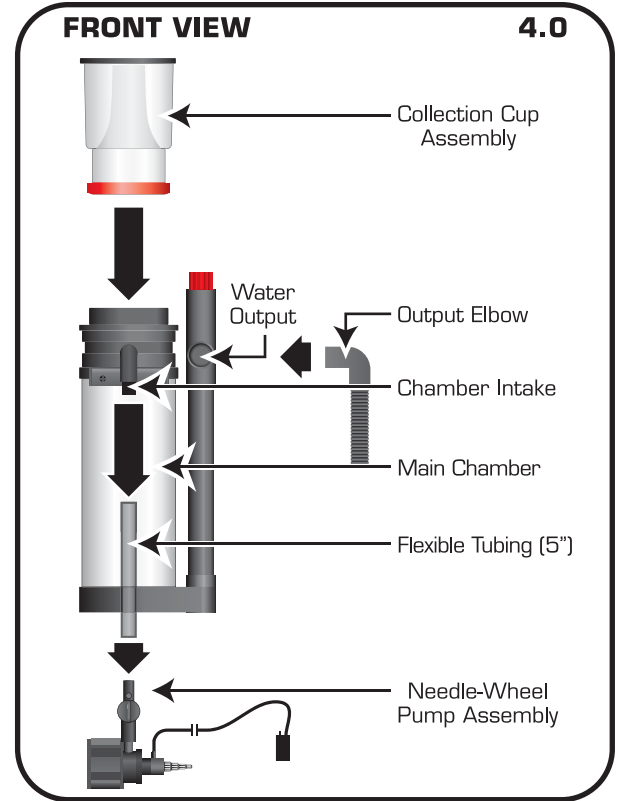
5. Attach output elbow onto water output. (4.1)

6. Place bubble-production diffuser onto sump. (4.2)

NOTE: Adjust bubble-production diffuser mounting bracket. Top of bubble-production diffuser must be .25" min. above water line. (Sump water line varies depending on sump size and water flow).

7. Insert the output elbow into bubble-production diffuser sponge (black). (4.2)

NOTE: Trim output elbow or adjust bubble-production diffuser height to allow a 1" min. space inside the sponge (black) to prevent micro-bubbles.





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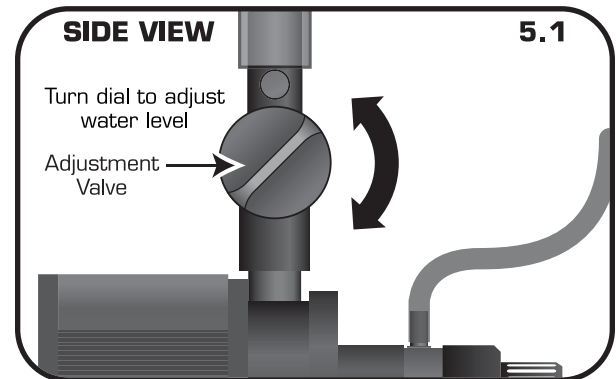
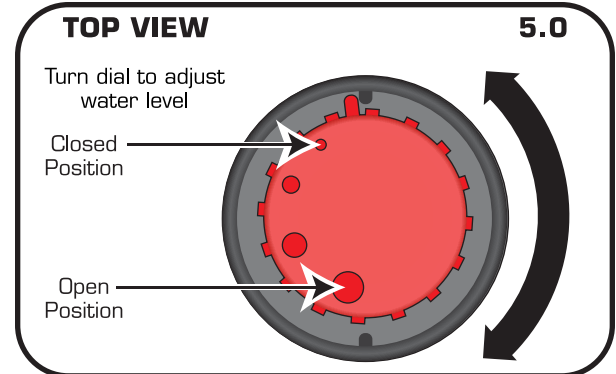
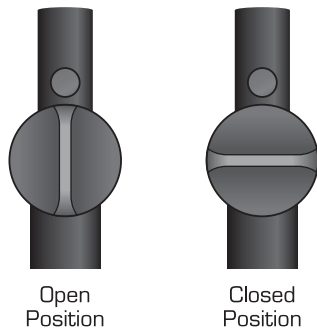
OPERATION

PRE-OPERATION

1. Make sure that all tubing connections are tightly secured.
2. Verify that collection cup and lid are tightly fastened and sealed to the main chamber.
3. Make sure that air-inlet silencer is above the water.

NOTE: Do not obstruct air flow into air-inlet silencer.

4. Check water-level adjustment dial and make sure it is in the open position. (5.0)
5. Make sure needle-wheel pump adjustment valve is 50% closed. (5.1)



INITIAL OPERATION

1. Plug needle-wheel pump cord into an outlet or power source.

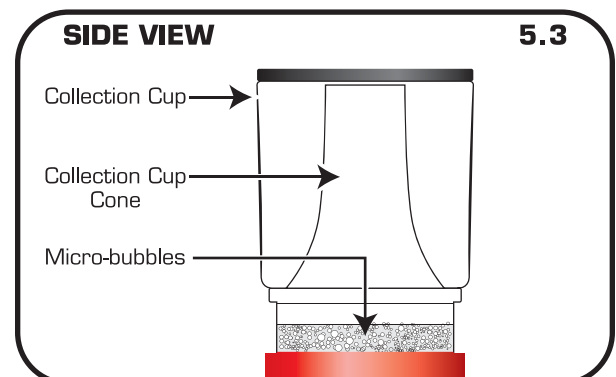
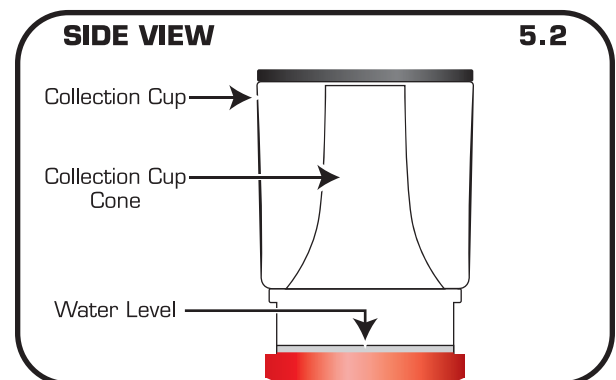
NOTE: Inspect connections for leaks and make sure that the water is flowing through the unit.

2. Adjust needle-wheel pump adjustment valve so that the water line is level with the collection cup threaded ring. (5.2)
3. Adjust water-level adjustment dial so that the micro-bubbles are below the collection cup cone. **Let the pump run for 24 - 72 hours to "break-in" the unit.** (5.3)

NOTE: Initial operation of protein skimmer may produce excess bubbles & waste. Allow collection cup to fill up and discard waste water until production decreases.

4. After "break-in" period, turn needle-wheel pump adjustment valve to the open position and adjust water-level adjustment dial accordingly.

CAUTION: Needle-wheel pump adjustment valve should only be used to slow down water production during break-in period. The water-level adjustment dial should be used to adjust water level.





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OPERATION

OPERATION

1. Turn water-level adjustment dial to raise water level within the main chamber and cone to desired skimming operation:

DRY SKIMMING OPERATION (6.0)

1. Adjust micro-bubbles to .25" high inside collection cup cone.

NOTE: Dry skimming will produce a dense foam layer which rises to the top of the cone where it collects until the dry foam overflows into the collection cup.

RESULTS:

1. Dry foam (froth)
2. Dark, concentrated waste material (Less Volume)

WET SKIMMING OPERATION (6.1)

1. Adjust micro-bubbles to .75" high inside collection cup cone.

NOTE: Wet skimming will produce a thin bubble layer which rises to the collection cup lid where it bursts and slides down the collection cup as wet wastewater.

RESULTS:

1. Wet foam
2. Light, diluted waste material (More Volume)

O3 (OZONE) OPERATION (OPTIONAL)

SAFETY: Turn off and unplug needle-wheel pump from outlet or power source before performing additional installation.

1. Prepare Components: Ozone Generator, ORP Controller or Monitor and ORP Probe.

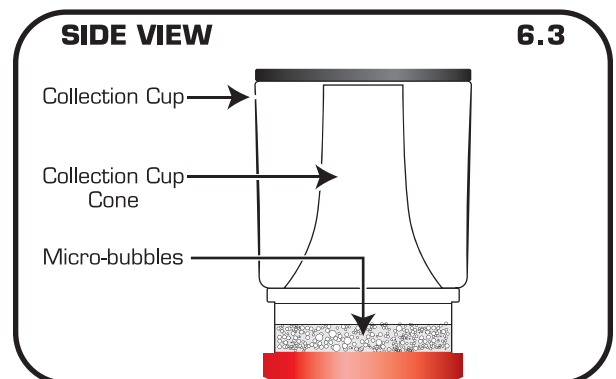
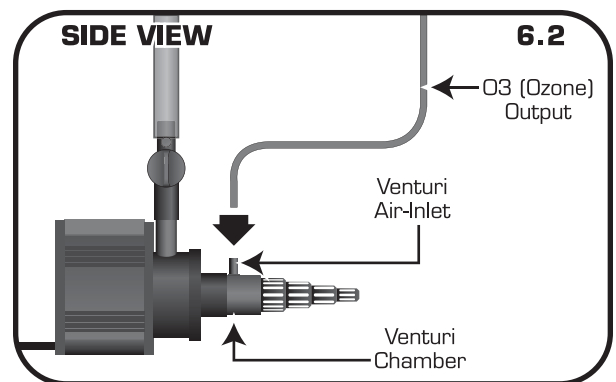
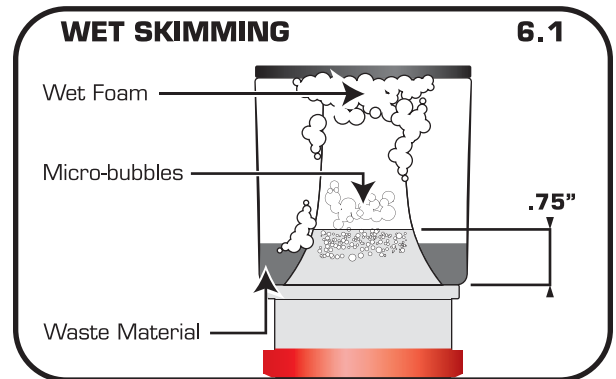
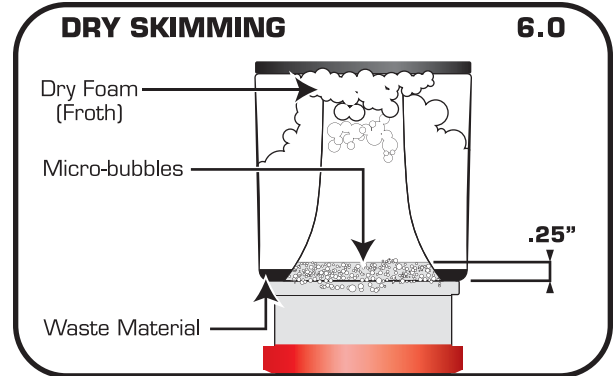
NOTE: Make sure to follow component manufacturer's instructions for proper installation and operation.

2. Remove air-inlet tubing with air-inlet silencer from needle-wheel pump venturi air-inlet.
3. Connect O3 (ozone) output to needle-wheel pump venturi air-inlet. (6.2)
4. Plug needle-wheel pump cord into an outlet or power cord.
5. Adjust water-level adjustment dial so that the micro-bubbles are below the collection cup cone. (6.3)

NOTE: Addition of O3 (ozone) breaks down (burns) organics, protein and dissolved wastes in water column increasing skimming efficiency and redox in aquarium.

RESULTS:

1. Very dry foam
2. Dark, concentrated waste material (Less Volume)





SUPER SKIMMER™

NEEDLE-WHEEL SYSTEM TECHNOLOGY

MAINTENANCE

MAINTENANCE

SAFETY: Always disconnect needle-wheel pump from power supply before removing collection cup or cleaning unit.

WARNING: Only clean with warm fresh water. Do not use any type of chemical cleaning agent to clean the skimmer. These include, but not limited to, soap, detergents, alcohol, glass cleaners, polishers, ammonia, etc.

1. To operate efficiently, the Super Skimmer must be in use 24 hours a day.

DAILY MAINTENANCE

1. Make sure all connections are secure.
2. Observe to see if skimmer is functioning properly and producing waste material.

NOTE: Skimmer may need to be adjusted accordingly due to variables in water quality and fluctuations.

3. Check to see if the collection cup is full and empty waste material.
4. Check water outlet vent hole to make sure it is clear of dirt and debris.

WEEKLY MAINTENANCE

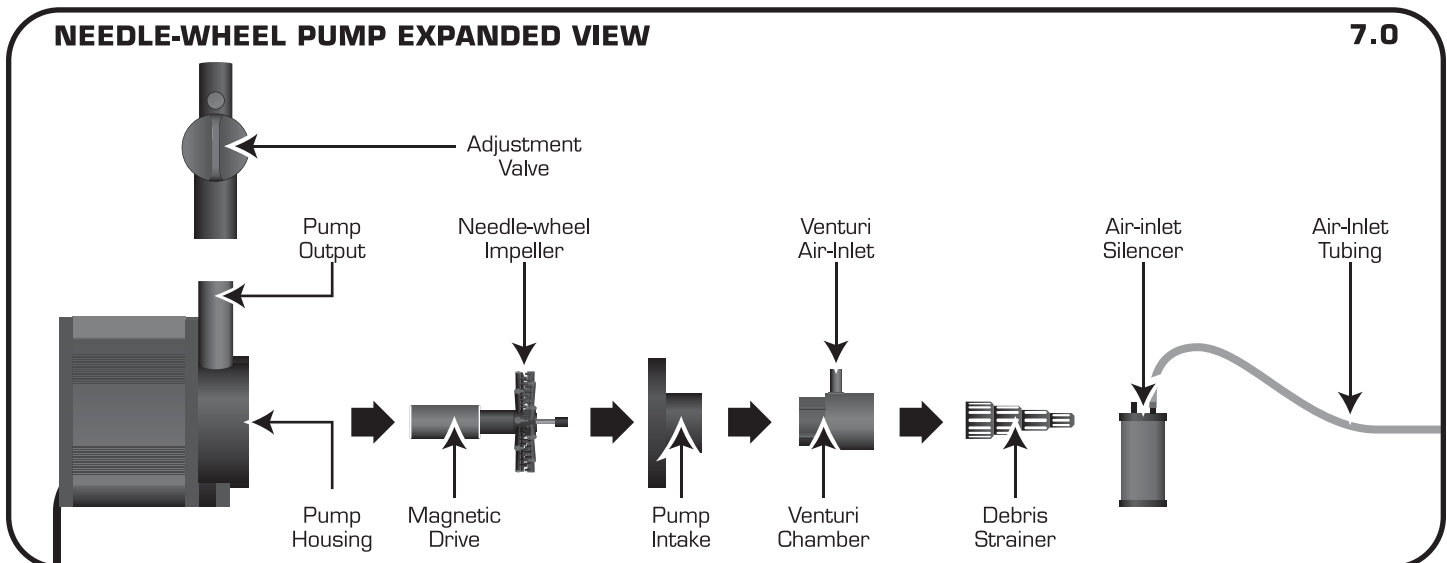
1. Clean the Collection Cup and Neck of organic build up.
2. Clean or replace the sponge and filter from the bubble production diffuser.

MONTHLY MAINTENANCE

1. Clean needle-wheel pump. Remove and disassemble needle-wheel pump. Rinse and wipe down all parts.

Make sure all parts are free and clean of any debris or calcium buildup. (7.0)

NOTE: If Calcium buildup is present, soak part(s) in a vinegar solution (1 part vinegar / 1 part water) to clean the unit.





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TROUBLESHOOTING

NOTE: Variables that affect skimming to produce dry or wet foam are:

- a. New Fish or Invertebrates
- b. Frequent Feeding
- c. Change in Water Chemistry
- d. Supplements and Medication
- e. Water Quality
- f. Water Fluctuations/Evaporation
- g. Addition of "Make-up" Water
- h. Water Changes
- i. Maintenance
- j. Inserting hands in the tank

1. No microbubbles produced inside the skimmer.

- a. The air-inlet silencer tubing is not attached to the venturi chamber air-inlet.
- b. The needle-wheel pump venturi chamber air-inlet is clogged.
- c. The venturi chamber is not completely attached to the pump intake.
- d. Make sure top of needle-wheel pump does not exceed 3" - 4" below the water line.
- e. Pump is not plugged in.

2. No foam produced inside collection cup.

- a. Adjust water level inside the skimmer.
- b. New skimmer may take up to 72 hrs. to adjust properly to aquarium system.

3. Water pump is not working.

- a. Check to make sure power is supplied.
- b. Check impeller for dirt and debris.

4. Skimmer water level fluctuates (pulses).

- a. The output elbow vent hole is clogged causing the skimmer to create a siphon from the output elbow.
- b. Output elbow is too deep inside of bubble trap. Cut output elbow and allow a 1" space inside the sponge (black).

5. Water is rapidly overflowing into collection cup.

- a. Reduce water level in the skimmer. Water level may be too high.
- b. Use needle-wheel pump adjustment valve to slow down water. (use only during "break-in" period.)
- c. Make sure water is flowing through output tubing. Bubble production diffuser may be clogged, blocking water flow.
- d. Changes in water chemistry. Readjust water-level adjustment dial to lower water level in skimmer.
- e. Output elbow is pushed against white filter pad in bubble-production diffuser. Allow 1" of space between bottom of output elbow and filter pad (white).

Energy Savers Unlimited

12 Month Limited Warranty

WHAT THE WARRANTY COVERS:

Energy Savers Unlimited (Company) warrants this product (see Exclusions below) to the original purchaser against defective material and workmanship that occurs during normal use for 12 months from the date of original purchase. Company will, at Company's option, either repair or replace same without charge (but no cash refunds will be made).

EXCLUSIONS:

1. Damage resulting from accident, misuse, abuse, lack of reasonable care, subjecting the product to any but the specified electrical service, other than normal and ordinary use of the product, subjecting the product to abnormal working conditions or any other failure not resulting from defects in materials or workmanship.
2. Damage resulting from modification, tampering with or attempted repair by anyone other than the Company.
3. Transfer of product to someone other than the original consumer purchaser.

WHAT YOU MUST DO TO ENFORCE WARRANTY:

1. Contact the Company by mail or telephone: Energy Savers Unlimited 910 E. Sandhill Ave. Carson, CA 90746
E-mail: info@esuweb.com Tel: (310) 851-8999 or 800-678-8844 Fax: 310-851-8996 to obtain a RETURN AUTHORIZATION NUMBER.

NOTE: Be sure to provide contact information when requesting return authorization number.

2. Deliver, mail or ship the product, together with a copy of the original bill of sale to:

**Energy Savers Unlimited
910 E. Sandhill Ave.
Carson, CA 90746**

You must pay any postage, shipping charges, insurance costs and other expenses to return the product to Energy Savers Unlimited Carson, CA. However, if the necessary repairs are covered by the warranty, Company will pay the return shipping charges to any destination within the United States or Canada.

LIMITATION OF IMPLIED WARRANTIES AND EXCLUSION OF CERTAIN DAMAGES:

THE COMPANY DISCLAIMS LIABILITY FOR INCIDENTAL AND CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, WITH RESPECT TO THIS PRODUCT. THIS WRITING CONSTITUTES THE ENTIRE AGREEMENT OF THE PARTIES WITH RESPECT TO THE SUBJECT MATTER HEREOF; NO WAIVER OR AMENDMENT SHALL BE VALID UNLESS IN WRITING SIGNED BY THE COMPANY. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation or exclusion may not apply to you.