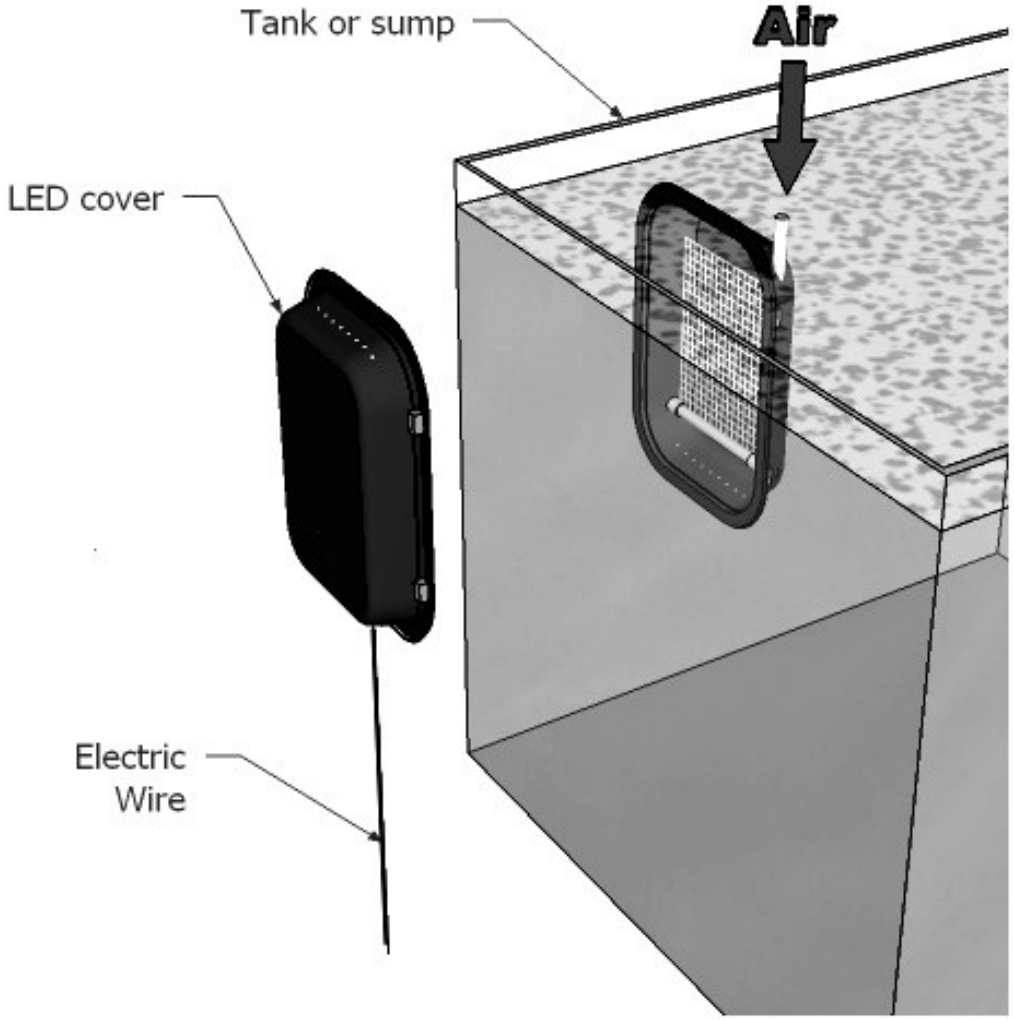
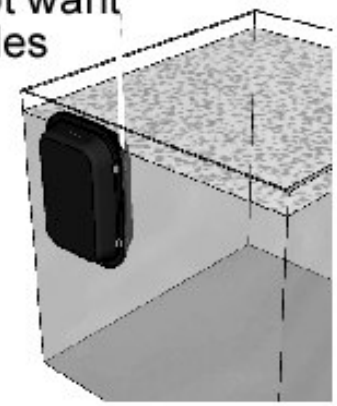
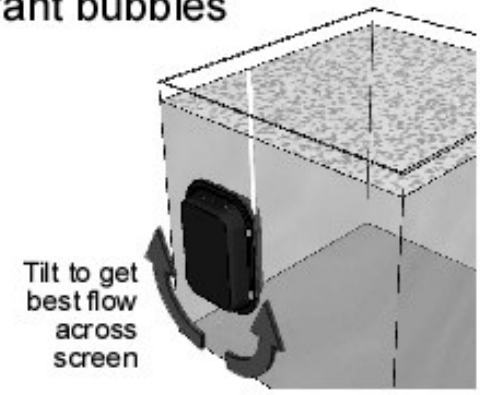
HOG™ UAS™ Installation



Position if you do not want bubbles



Position if you want bubbles



Santa Monica Filtration™

Hang-On-Glass™ 0.5
Upflow Algae Scrubber™

Magnet Version:
For glass or acrylic up to ¼" (6.25mm) thick

Suction Cup Version:
For glass or acrylic of any thickness

Thank you for your purchase of the Santa Monica Filtration HOG.5 Hang-On-Glass Algae Scrubber. Enclosed is either the magnet version, or the suction cup version (not both). This device will do most of the filtering needed for your fresh or saltwater aquarium, and in most cases, it will do all the filtering. Part of this filtering includes helping eliminate two very important things that drive most aquarium owners crazy: Algae and waterchanges. It works by growing algae inside the filter, which consumes all the "bad" things out of the water*. This is how all the oceans, and all the lakes, are naturally filtered.

Aquarium size: This HOG.5 is designed to be the only filter on an aquarium that is fed up to 1/2 frozen cube per day, or 5 pinches of flake food per day, or 5 square inches (30 sq cm) of nori seaweed per day, or 0.05 dry ounce (1.4 grams) of pellet food per day. The amount of water in the aquarium, or the measurements of the aquarium, are not important. If you feed more than these amounts, you can use additional HOG.5 filters to add up to the amount that you are feeding, and clean one of them at a time on a rotating schedule (one per week, etc). If you feed much less than these amounts, and the aquarium is very small, then it will still work fine; you just need to find a place to put it. The

magnet version of this filter will attach to glass or acrylic up to 1/4" (6.25mm) thick, and the suction-cup version will attach to glass or acrylic of any thickness.

Filter Position: The HOG.5 can be placed below or slightly above the water surface. If you don't want any bubbles, put the filter slightly above the water surface, so that the top 1" (2.5cm) of the filter is out of the water. If you want bubbles, put the filter farther down under the water surface. If you put the filter farther down, it will also collect more brown particles in the filter because of the additional water flow through the filter; this additional water flow will also circulate more water through the aquarium. The filter could also be placed in a sump if you have one, if the space is at least 5" (12.5cm) wide. Make sure that the outside cover of the UAS (with the LEDs) is positioned with the electrical wire going down (as in the picture on the first page), and not up, even if you route the wire above the aquarium.

Light Timer: The lights (LEDs) in the filter must be put on a timer so that they stay on for part of the day, and off for the rest of the day. The LED light cannot stay on for 24 hours, or the filter will not function at all because it will not grow the algae it needs to grow in the filter. A good starting point is 8 hours per day for your first week. Once the middle of the screen is no longer white, increase the hours by 2 per day the next week. If the middle of the screen continues to grow good, increase the hours by 2 more per day for the week after that. However if the middle of the screen starts showing a bald spot, then decrease the hours by 2 per day. By adjusting the hours per day, you can control the growth: A bald or white spot in the middle of the screen means you need less hours; thick growth in the middle of the screen means you can add more hours (up to 18 per day). Eventually you will find the overall best number of hours for your aquarium.

Air Pump: An air pump is required that can provide up to 1 liter per minute (.04 cfm) of air in order to make air bubbles flow up the screen. It is these air bubbles which move water across the screen, and also supply carbon dioxide (CO2 in the air) to the screen, which allow algae to grow in the filter. The air pump should run 24 hours a day, however you can turn it off for a few hours if needed. If you place the filter above the water surface but are getting water spraying out of the hole in the top, reduce the amount of air bubbles by pinching the air hose with a paper clip, or tying the hose in a knot. Make sure to place the air pump above the aquarium, so water does not drain out if the power goes off.

Screen Preparation: Although not required, if you have some algae from your tank or from your glass, you can rub it on the screen to help the filter grow sooner. Rub it in really good into the material of the screen, then rinse the screen off. You won't see any algae remaining, but the tiny algae particles will be attached to the screen. If you don't rub any algae into the screen, it will just take a few more days to grow, but after that it will operate the same.

Sound: You can change how much sound the he HOG.5 makes by reducing the airflow (by pinching the vinyl tubing after the air pump), and by changing the position of the filter on the aquarium glass, up or down. The vinyl tubing where the bubbles come out

inside the filter can also be adjusted by moving the segments of cut tubing; the more-closed the pieces are, the less sound they will make; the more open they are, the more sound they make, and the more air is required. Filtering, however, will be better with more and larger bubbles because it will grow more algae in the filter.

Bubble Adjustment: The bubbles come out of the vinyl tubing below the screen. The tubing is cut lengthwise, and with crosscuts, to form little flexible segments; the bubbles come out from between these flexible segments. When setting the filter up for the first time, you will need to look at the bubble flow, and adjust the little segments by pushing on them, or by slighting raising them up, or tucking them in, to get good bubble flow across the screen. If after adjusting, a few segments are still too far open, you can pinch them closed with tweezers, pliers, or your fingers, and this will loosen some of the glue that attaches the tubing to the cover; this should allow the segments to close farther. Also you can tilt the whole filter one way or the other, to help direct the bubbles to one side of the screen or the other. Perfect bubble flow is not needed, however, because once thick algae growth occurs on the screen, the algae will re-route the bubbles anyway.

Filter Cleaning: The filter must be cleaned when the algae growth gets thick, which is usually every 7 to 14 days once it has been operating for several months. If the growth is not thick by 14 days, let it go to 21 days before cleaning. Newer filters usually have to run for more days than older filters do, before they grow thick algae. Brand new filters sometime have to run for one month before thick algae develops.

To clean the magnet version, remove the outside portion of the filter (with the lights); the inside portion (with the screen) can then be pulled up. For the suction-cup version, reach in to the aquarium and remove the two suction cups from the glass, and then pull the inside portion up. Now disconnect the air hose from the air pump and take the inside portion to your sink. Use a toothbrush to remove algae growth off of the screen, the cover, and the air hose (you may need to bend the little flexible segments where the bubbles come out, to get inside them to clean them). Also bend the screen forward a little bit and clean the back side of it, as well as all the black plastic. The more algae you clean off, the more nutrients ("bad things") you are removing from the aquarium, and the better filtering you will get. It may also help to blow into the air hose while cleaning the flexible tubing segments. After cleaning, the screen should be almost white again. Now brush off any algae that was growing on the aquarium glass, and put the filter back into the aquarium. Look at the bubble flow to make sure it is almost even; adjust the little flexible segments if needed. Do not let the screen dry out; if you can't put it back into the aquarium immediately, then set the screen in some water in the sink or a bucket to keep it wet so the algae on it won't die. A screen can live for several days in just water, with no light or flow.

If it is not time to clean your filter yet, but your aquarium glass is growing algae and blocking the LED light from reaching the screen, the magnet version will allow you to slide the filter sideways to a new, clean area. If you have the suction-cup version, you'll need to reach into the aquarium and remove the suction-cups and re-attach them to a new

clean area. Once you move the filter sideways, your fish or snails will eat the algae off the glass in the old location.

Power Supply: Do not put the power supply or the LEDs in the water, or get any water on them. The LEDs use 7 watts of power when turned on, and use a low voltage that is perfectly safe. The filter comes with a power supply that works on both 120 or 220 volts, and this power supply converts the 120 or 220 volts to the safe low voltage. The plug is for 120V (USA), so if you need to plug into a different type of outlet, you'll need to get a plug-converter (available at any hardware, electronics, or home improvement store, or online) or just cut the plug off and attach your own from a hardware store. The power supply does get warm, so place it where it can get air (don't put things on top of it). To allow it to run the coolest, you can mount it to a vertical wall so air can flow up from under it: use two small screws, or double-sided tape, or just hang it with its wire. Also, is it recommended that you use a GFCI safely plug, available at any aquarium, hardware, electrical or home improvement store, or online.

Bulb Replacement: The LEDs do not need replacing.

*** Water Changes:** If you have been doing water changes to reduce nitrate, phosphate, or nuisance algae, then a UAS filter will greatly reduce the need for them and may possibly eliminate them. When algae grow, they consume nitrate, nitrite, phosphate, ammonia/ammonium, metals, CO2, and some toxins; so it's just a matter of growing enough algae inside the filter to do the filtering you need, compared to how many nutrients you are putting into the tank with the food you feed (that is why this UAS is sized for a certain amount of feeding per day). However, this filter (and algae in general) do not supply calcium, alkalinity, magnesium or strontium. So if you wish to reduce or eliminate water changes, you will need to supplement any calcium, alkalinity, magnesium or strontium that you were depending on water changes for. Freshwater aquariums, which may only need alkalinity (hardness) to be maintained, may get enough alkalinity from just doing top-offs with tap water.

Dimensions: Each cover is 5" wide x 6 5/8" high x 1" thick (12.7cm wide x 16.8cm high x 2.5cm thick). Suction-cups add another 1 3/8" (3.4cm) of height to the outside LED cover, and another 2 ¾" (6.8cm) of width to the inside bubble cover. The power cord is 10' (3m) from the plug to the filter. The air tubing is 3' (.9m)

Warranty: The HOG.5 comes with a 60 day warranty for the electrical items only: Power supply, wiring, and LEDs and plug. Warranty is for replacement or repair only; not a refund. Costs for shipping back to us are covered if you are in the U.S. Costs for shipping back to us are not covered if you are not in the U.S., however we will pay for shipping back to you. In either case, you will need to ship the entire filter back to us before we can ship a replacement.

Warranty is limited to repair or replacement, and does not cover fish loss, personal injury, property loss, or direct, incidental or consequential damage arising from the use of it. The warranty and remedies set forth above are exclusive and in lieu of all

others, whether oral or written, express or implied. We specifically disclaim any and all implied warranties, including but not limited to lost profits, downtime, goodwill, damage to or replacement of other equipment and property, and any costs of recovering animals, plants, tanks or other aquarium related items and/or equipment. We are not responsible for special, incidental, or consequential damages resulting from any breach of warranty, or replacement of equipment or property, or any costs of recovering or reproducing any equipment, animals or plants used or grown with this product.

For detailed instructions, examples, expert advice, and to post pictures of your filter:
www.AlgaeScrubber.net

For additional filters, parts, kits, or instructions in other languages:
www.Santa-Monica.cc