



## AquaFuge™ 2 PS Refugium

The CPR AquaFuge™ 2 PS refugium is designed to allow you to culture live food items, macro algae, damaged or newly propagated corals, and much more without the risk of losing these items to predators or other conditions in the main tank. This newest version of the AquaFuge™ 2 refugiums adds the benefits of a protein skimmer to remove any excess organics. The AquaFuge™ 2 PS refugium simply hangs on the tank and requires no supplemental plumbing. The specially designed baffles and outlet prevent most substrates from being disturbed while allowing enough water flow to eliminate “dead” areas. With the ability to grow various species of macro algae in a controlled environment, the AquaFuge™ 2 PS can actually help stabilize your marine ecosystem and to reduce the growth of nuisance algae in the main tank.

To place your AquaFuge™ 2 PS into operation:

1. Open the packaging carefully and inspect the unit for damaged or missing parts. You should have:
  - (1) Refugium body
  - (1) Rio 600RV powerhead
  - (1) Outlet assembly
  - (1) Collection cup with “O” ring and lid
  - (1) Inlet assembly

*If purchased with lighting*

- (1) 16” CPR 24W Daylight Bulb
- (2) Acrylic stands

If any items are damaged or missing, please contact your dealer immediately.

2. Attach the powerhead to the inlet assembly. **Ensure that the AquaFuge™ 2 PS is parallel to the back of the aquarium by using the adjustment screws on the base of the refugium. Make sure that the powerhead is fully submerged in the water.**
3. Before placing the AquaFuge™ 2 PS into operation, it is recommended that you now add any substrate that you plan to use to minimize clouding of the water. Some substrate may require rinsing before placing it in the refugium. Once the unit is part way filled you may want to unplug the powerhead for a short time to allow fine sediment to settle.
4. Clean the collection cup including the throat of the funnel in hot water. This will cause the skimmer to begin collecting waste faster. Do not use any detergents on the collection cup.
5. Plug in the powerhead. Your AquaFuge™ 2 PS is now operational.
6. The base of the collection funnel should be 1/8” below the water surface for optimal performance. Slide the O-ring up or down until the desired skimmate wetness is achieved.
7. The air valve on the Maxi-Jet will allow you to control the amount of air being drawn into the powerhead. We recommend opening the valve completely for maximum air flow into the skimmer.
8. If turbulence bubbles are coming out of the outlet pipe, adjust the elbow on the pipe so that half the outlet is exposed and out of the water. The outlet can be made shorter or lower by adjusting (up or down) or by reversing the elbow (notice one side is shorter). (See Diagram B) This will allow the bubbles to vent out of the opening without being pushed into the aquarium.

***It is common that some of the micro-bubbles escape to the tank for the first 48 - 72 hours. This will stop after the break-in period.***

## Setup Recommendations

Although it is difficult to classify the AquaFuge™ 2 PS as a traditional “filter”, its benefits to your tank depend on how you set it up. The AquaFuge™ 2 PS has the potential of increasing biodiversity, improving water quality, decreasing nuisance algae and providing greater stability for your aquarium.

There are a number of ways to set up and use your AquaFuge™ 2 PS refugium. Here are just a few possibilities:

1. With or without a live sand bed. A live sand bed can assist with denitrification and provides a substrate for detritivores and other organisms. This is very beneficial to tanks that may lack live sand.
2. Small pieces of live rock and/or rubble can provide a substrate for small corals, mushrooms, and algae to grow on. Branch rock works especially well.
3. The addition of a full spectrum light to the AquaFuge™ 2 PS can provide excellent growing conditions for photosynthetic invertebrates and various species of algae. The AquaFuge™ 2 PS has been specifically designed to accept some of the smaller sizes of compact fluorescent lighting on top of the refugium. Caulerpa and other decorative algae may be grown out of the reach of herbivorous fish. By having an area where algae can thrive, the competition for nutrients can help to reduce the growth of nuisance algae in the main tank.
4. The AquaFuge™ 2 PS now makes coral propagation for reef tank owners easier. Small fragments can be placed into the relative safety of the AquaFuge™ 2 PS, away from inquisitive animals and strong water movement. Here they will have a place to heal from the cutting and can attach to whatever substrate you offer them. The AquaFuge™ 2 is also an ideal area for loose mushroom anemones and polyps to attach before being placed back into the main aquarium.

## MAINTENANCE

- 1) *The collection cup should be emptied regularly. Every time you empty the cup, clean the base of the funnel and the inside of the throat for better collection.*
- 2) *Clean the powerhead at least once a month. Replace the powerhead every twelve to eighteen months to ensure optimal performance*
- 3) *The inlet and outlet may be removed and cleaned as needed. Be sure to replace the washers on each assembly when reassembling your AquaFuge™ 2 PS. With the fittings removed the body can be cleaned with warm tap water and an algae scrubber. Be careful when removing and assembling the inlet and outlet fittings. Do not over-tighten these fittings as this may cause them to break.*



# AquaFuge™ 2 PS Assembly

