



## AquaFuge 2 Hang-on Refugium

The CPR AquaFuge™ 2 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. The AquaFuge™ 2 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 culture a number of natural food items, the AquaFuge™ 2 will benefit the carnivorous organisms in the main tank, and with the ability to grow various species of macro algae in a controlled environment, the AquaFuge™ 2 can actually help to reduce the growth of nuisance algae in the main tank.

To place your AquaFuge™ 2 into operation:

1. Open the packaging carefully and inspect the unit for damaged or missing parts. You should have:
  - (1) Refugium body
  - (1) Tunze Comline 900 Powerhead
  - (1) Inlet assembly

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

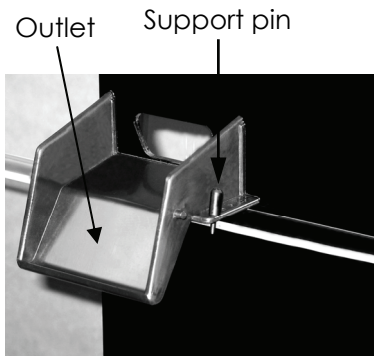
2. **Do not use the interior brace to carry or move the refugium as this will weaken the structural integrity of the unit.** If your aquarium has an opening that is large enough for the powerhead to slide in, then attach the powerhead to the refugium by inserting the outlet of the powerhead into the opening of the inlet assembly. Some acrylic tanks have small openings, so you may have to attach the powerhead to the refugium from inside the aquarium. Allow the AquaFuge™ 2 to sit on the rim of the tank using the braces as support. The AquaFuge™ 2 can accommodate rim sizes up to 2" wide. For narrower rims, tighten the black adjustment screws on the braces to prevent the AquaFuge™ 2 from sliding forward or backward.
3. **Ensure that the AquaFuge™ 2 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.**
4. Before placing the AquaFuge™ 2 into operation, it is recommended that you now add any substrate that you plan to use to minimize clouding of the water. Once the unit is part way filled you may want to unplug the powerhead for a short time to allow fine sediment to settle.
5. **Make sure that the powerhead is completely submerged and plug in the powerhead.**
6. The Tunze powerhead included with your AquaFuge™ 2 has an adjustable flow rate. Rotate the blue impeller cover left or right to increase or decrease the flow to reach your desired flow rate.
7. The powerhead that feeds water to the refugium should be disassembled and cleaned at least every 4 - 6 months to ensure optimal performance of the AquaFuge™ 2.  
**See following page for instructions.**

## Setup Recommendations

Although it is difficult to classify the AquaFuge™ 2 as a traditional “filter”, its benefits to your tank depend on how you set it up. The AquaFuge™ 2 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 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 can provide excellent growing conditions for photosynthetic invertebrates and various species of algae. The AquaFuge™ 2 has been specifically designed to accept some of the smaller size LED 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 now makes coral propagation for reef tank owners easier. Small fragments can be placed into the relative safety of the AquaFuge™ 2, 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.



## Pump Maintenance & Cleaning

To ensure reliable and efficient operation of the Tunze powerhead included with your AquaFuge™ 2 we recommend disassembling and cleaning your pump at least every 4 to 6 months.

### Powerhead Disassembly

1. Unplug and remove powerhead from your AquaFuge™ 2.
2. Remove impeller cover. Please note position of adjustment notch above the “+ / -” on cover before removal.
3. Remove impeller assembly.
4. Remove rectangular cover with “TUNZE” logo below power cord at back of powerhead.

### Powerhead Cleaning

1. Disassemble powerhead
2. Place powerhead body and components in vinegar or dilute muriatic acid. (1 gallon of water to 0.75 to 1 cup of acid)
3. Soak for 15 to 20 minutes. Longer is ok if there is a lot of calcium deposits on the powerhead.
4. Use a small brush to gently any remaining deposits.
5. Rinse powerhead body and components in freshwater and re-assemble using the reverse order of the instructions above.

\* Make sure the adjustment notch above “+ / -” on the impeller cover lines up with the fin on the powerhead body.



Adjustment  
Screws