

FAS Fact Sheet

Acclimating fish may be hazardous to your fishes' health, *and hazardous to your pocketbook.*

Poor quality water, whether due to improper packaging, or the normal accumulation of biological and chemical waste products during shipping, increase the danger of "shocking" marine life during the acclimation process. Lengthy shipping or delivery times between point of origin and destination, further increase the danger. In fact, the longer fish remain in the bag water they were shipped in, the more you need *our* new approach to acclimation. Contaminants of many types may be present in the bag water. Unfortunately, the old-fashioned acclimation process does not deal with this issue.

Aquarium Design is proud to announce the **Fish Acclimation System®** (FAS), a major improvement to the entire acclimation process. FAS is the result of twenty-five years of in-house use, and is now available to hobbyists, wholesalers, and shippers. *FAS* comes with everything you need to do it the *right way*. FAS is constructed of clear strong cast acrylic sheet, and include two submersible pumps, and a CO2 reactor.

All plumbing is included, and the FAS is ready to go.

Acclimation the old-fashioned way...

Most of us know it is not wise to introduce the bag water directly into our aquariums, although some new very inexperienced hobbyists may make this mistake. The standard technique is to float the bag in the new aquarium water to match and equalize temperatures. Then, we slowly add our new aquarium water to the bag water. *We may manually mix, or some of us may even "hook up" a contraption of airline tubing. to sort of "automate" the process, and to get the job done.*

Unfortunately, in addition to this being a chore, a serious problem is often created, and one that most hobbyists are not aware of -- the release of ammonia within the bag water itself. The new added water generally has a higher pH than the bag water and actually causes ammonia to be released from solution. The result is that ammonia levels rise sharply within the bag. In addition, other undesirable contaminants may also be released. Bag water is a poor quality environment you are about to make worse.

Ideally fish should be removed from the delivery water as soon as possible, and the bag water discarded. - *Swimming in, and breathing ammonia, is not a fish's favorite past time!*

® Patent pending

Acclimation the better way....

*Acclimation should be a two-fold process. Pre-acclimation **and** acclimation*

Pre-acclimation. *The first extremely important thing to do, is to transfer the fish to Clean Biological Water, or CBW. Water that is correctly matched to the salinity, and particularly the **ph level of the bag water**, without any of the waste products that accumulate during normal shipping or delivery, water free of any harmful contaminants.*

Acclimation. *Then, and only then, should you **slowly** add your new aquarium water to the fish in the CBW water.*

Of course you may float the fish in the bag water before you begin the process to match temperatures. Try not to leave the bag floating more than necessary.

Assembly....

Place the FAS on a clean level surface. Choose a nearby area for the included CO2 reactor and required CO2 gas cylinder not included. *

Place the small **submersible circulating pump** in the bottom of the FAS. Place the **submersible drip pump** in the aquarium the fish will acclimated to. Connect all flexible tubes as indicated in the diagram. No PVC gluing is required. Just slide the flexible tubes onto their respective fittings. Connect a suitable hose to the drain on the FAS.

Here's how to use the FAS...

Use the purest water available

Pre-fill the FAS with clean biological water. RO. (reverse osmosis) is one of many good filtration processes that may be used.

Alternatively, bottled or distilled water may be used. Tap water may be used if the proper precautions are taken. In fact, most hobbyists do use tap water.

However, the cleaner the water is biologically, with the least impurities of any kind, the better the results.

* We regret we cannot include the CO2 cylinder You may pick one up locally. A small sized unit is sufficient and inexpensive. They are available nation-wide, through authorized dealers. We can provide a regulator for the cylinder at a reduced price.

NOTE--- or we include empty cylinder

Turn on the included **submersible circulating pump**.

When your fish arrive, carefully open the bag, and test for ph and salinity, and temperature

You may then reseal and float the bag in the FAS. Although, in many cases, a slight difference in temperature will not matter.

Open the valve on the CO2 cylinder and adjust the regulator. One or two bubbles of CO2 per second are all that is required. This will be clearly visible. The CO2 will automatically mix with the FAS water, as it circulates through the CO2 reactor. Lower the ph level of the FAS to that of the bag water. This may take ten to fifteen minutes. Test every so often. This process will happen before you know it. You may actually stop the CO2 reactor a few points before that of the bag water ph level. The CO2 in the FAS will ‘stabilize’ a few points lower within minutes. While the CO2 reactor is working, you may adjust salinity levels. Add the correct amount of salt to the FAS. water.

After the ph and salt are correct, remove the fish from the bag, discard the bag water, and place the fish in any of the FAS compartments. If you choose to segregate by species, you may.

You will notice within a very short time *rejuvenated fish*.

Now turn on the **submersible drip pump** in your main aquarium, the one where the fish will eventually call home.

Open the drip valves located directly above each FAS compartment. A small flexible airline tube will guide the water from each valve to each compartment. Set the valves to drip slowly, between 20 and 60 drops per minute. Main aquarium water will slowly flow into the FAS, mixing with and displacing the original water in the FAS.

Fish that have arrived in fairly good condition may be acclimated quicker than those that have arrived poorly.

Slowly but surely your fish will be gently acclimated to the conditions of your aquarium. You have not “shocked ” your fish; in both the “pre-acclimation” phase, and the actual acclimation phase itself.

Nor have you shocked your pocketbook.

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