

# Aquarium User Manual & Safety Precautions



Congratulations on your new Crystal Dynamic aquarium! Please read these instructions carefully, as they are essential to ensure proper function and structural integrity of your tank.

Crystal Dynamic products are built by expert craftsmen using top quality glass and silicone. They are made with a high degree of safety, which is reflected in the specific glass thickness and the bracing features that were recommended to you during the quoting process. To ensure the structural soundness of our tanks, we water test larger designs for 7 days before releasing them to the consumer; smaller tanks can be water tested upon request.

It is important to remember that all the structural elements of your tank are essential to its integrity. Do not attempt to remove or temper with the glass braces or the plastic trim on your tank. Doing so will void warranty and put your tank in danger of failing.

**IMPORTANT!** Even with quality materials, a proper build, and all structural elements intact, tank failure may still occur if proper conditions of use are not observed. Please read further to review the possible causes for failure and learn how to avoid them.

## ENSURING A STRONG, LEVEL SURFACE

In our experience, the majority of tank failures occur due to being positioned on an unlevel surface. Filling the tank with water exerts a lot of pressure on the panels and seams, and this pressure must be uniform throughout the tank. Unlevel surfaces (resulting from improperly supported stands, tilted or non-uniform cabinet decks, or uneven floors) create an imbalance in pressure, which will most likely result in a separation of the seams at some point (most often, several weeks, but can also be months into the operation of the tank).

Keep in mind, even the stands that were made in proper fashion may settle and lose form over time. They can also conform to uneven floors. If you are planning to build a stand on your own or put your new tank on a used aquarium stand, you must consult us first and receive our approval of your design.

## ABNORMAL TEMPERATURE CONDITIONS

Some lights, e.g. metal halide lights, generate extreme levels of heat that radiates onto the glass and silicone. The frequent and sharp fluctuations in temperature put a lot of stress on these materials. As hobbyists, we understand the appeal of using powerful lights for coral growth, but think it is important for users to be informed of the repercussions.

The use of MH lights WILL negatively affect the longevity of your tank. Separations of the center brace and the euro brace are not uncommon as these are closest to the heat source. If you do have a preference for hotter lights, make sure to place them at a safe distance. Never place ANY lights directly on top of the center brace. Check the integrity of the euro brace regularly (it should not budge when you tug at it).

Do not use your tank outdoors and do not allow direct exposure to sunlight. Be wary of using or storing your tank in areas with no climate control (such as a garage).

## TRANSPORTATION

To maintain its structural integrity, the aquarium must be properly handled. Transportation must be carried out of a flat wooden crate, with the tank firmly secured. When lifting the tank, all sides must be lifted equally, avoiding tilts and unevenly distributed pressure. It is absolutely not acceptable to put the tank on its end or side – so consider your doorway clearances before deciding on tank dimensions.

If you are repositioning or moving an existing tank, it must be emptied of all water and rock.

## INSTALLATION

First-time users should not attempt DIY installation. Professional installer services are preferred to ensure proper setup, and a certified electrician is required to hook up powered systems. Take care not to place your aquarium on or near any electrical appliances.

A properly executed installation results in a tank and stand that are sitting on a perfectly level surface. All four legs of the stand must be flat against the floor. Special care should be taken with carpeted surfaces to ensure level underneath the carpet.

A bubble level should be applied to all sides of the stand, as well as the stand deck to check for warping. The deck itself should be made of solid hardwood plywood. Once the aquarium is on top of the stand, all four corners must be flat against the deck. Once the aquarium is completely filled with water, a bubble level should be used a second time on all of its four sides and diagonally for another level check. Re-check the level 2 to 3 weeks into using the aquarium, and then every couple of months to record any changes. In the majority of tank failures, a negative scenario could have been foreseen by keeping an eye on the physical parameters of the tank, such as level, bowing, and the change of silicone color in the bracing.

## MAINTENANCE

Consult your local fish store for specifics on taking care of your tank and livestock. When cleaning the tank, avoid using metal scrapers and blades around the silicone seams. Even though some parts of your tank may be hard to reach, take care never to put your weight against your tank during cleaning. Use a sturdy stepstool to avoid leaning on the bracing. For greater longevity of your tank, make sure your braces and seams are free from salt creep, which can slowly deteriorate the silicone.

Take note of the changes in your tank over time. Some bowing of rimless tanks is acceptable, but if that bowing increases, it is a cause for concern. The same can be said about the formation of new bubbles in the silicone (or the fogging of clear silicone), which shows new forces are being exerted on the seam. It is a good idea to check the level on all four sides of your aquarium every couple of months. Report any changes to your installer, local fish store, or Crystal Dynamic.

For peace of mind, aquarium owners should include possible damages from flooding in their home insurance. **DO NOT ASSUME** your fish tank is covered; all companies and policies are different and you may need a special rider. You should also have a **CONTINGENCY PLAN** on hand in the event you need to relocate your livestock and coral. On our part, we promise to deliver the most structurally sound tanks possible, and are always here to answer all your questions and provide assistance.