



Operational Protocol For Hobby Units

pH- 5.8 Base set point and adjusted daily.

CLEAR REZ- Apply EZ-CLONE CLEAR REZ at 1oz/5Gals of water **before** adding your nutrient. CLEAR REZ guards against scale and other build ups, ensuring a clean system with better water quality. Re-apply every 5 days or sooner if you notice organic smells coming from your water. Higher temperatures may require more frequent applications.

ppm (500 NaCl Scale) - 170ppm → 280ppm ... this can differ from strain to strain. Dial in based on signs of slight toxicity or deficiency. For nutrient, we use our in house solution specific to cloning (it's a liquid nutrient not a rooting hormone).

Rooting Hormone- EZ-CLONE Rooting Compound applied at 2mL/Gal of water. Mix directly with water in a separate vessel and then apply to reservoir (No dipping required).

Water Temperature- 69°F-75°F (If the water is breaching 75°F, you can use a 1min ON 4min OFF cycle timer to lower Temps.)

Air Temperature- 69°F-75°F

Humidity- 50-70% RH

Light Levels- 50-70 PPFD, measured by a PAR meter, works best. Too much light (100PPFD+) could cause clones to become chlorotic prematurely in the process and can cause an onset of acute toxicity or deficiency by accelerating transpiration rates or photosynthetic response.

Taking and Preparing a Cutting

The machine should have all protocols set and ready for operation. Always make sure your utensils and work space have been sterilized with Isopropyl Alcohol.

When taking your cuttings, you'll want the healthiest you can select. Do not depend on weak or deficient branches as viable cuttings. We take 6" clones, so we'll cut 7-8" branches off the mother, and immediately place into a pitcher of water. Once we have a decent population of cuttings, we'll move the vessel to our work table and take one branch out at a time, remove excess foliage, lay it flat on a pre marked and measured cutting mat, make the final 45° precision cut at desired length, and place into a spare collar which will subsequently be switched with an empty collar and placed into an open cloning site in a running machine. This will allow you to place cuttings in a functioning machine without getting sprayed from the running system.

Cleaning Protocol

Always start a new run from a clean baseline, like surgical clean. Use bleach at a rate of 1 cup/5 gallons to run through the system, but before you do that, break down the pump, misters and the manifold in the riser and scrub all of the surfaces, the threads, and any corners or tough to reach places. The pump itself has two often overlooked places. The first is beneath the filter housing and behind the front guard plate where the impeller is. You can use pliers to twist the guard off to give you access to the impeller in order to clean/scrub the mag drive and the inside of the housing.

The second place is the cover on the back that pops off and exposes the back housing which has a dead space where water can accumulate. Scrub those with a bleach solution and a scrub brush.

Once you've scrubbed everything, rinse it with fresh water and assemble back together. Replace your cloning collars every time if you can afford it, if not, definitely sterilize it with a bleach solution and discard any collars that have remaining organic matter like roots or deep seeded biofilms. Do not re-use your collars more than once or twice.

Then fill the system up with your bleach solution @ 1cup/5 gal of H2O and run for a couple hours. Once your bleach run is complete, empty it, refill with fresh water and run for an hour.

Once you have rinsed the system, dump the water and immediately set it up for the next clone run. If you are going to store the system, make sure it is completely dry before storing away. Hard to dry compartments should be taken apart and dried. Irrigation manifolds can be dried thoroughly by using compressed air.