

## Operation instructions for the 6 inch and 8 inch Automated Calcium Reactor.

Please remove all parts from the box and inspect them for damage before setting up unit.

Make sure you have enough Reborn media to fill the reactor and enough Remag media if you have a stacked version to fill the lower chamber  $\frac{3}{4}$  full

Position reactor on a flat surface that is easy to get to in order to refill with media.

Fill reactor with reborn media right below the pump inlet line on the top of the reactor

If you have a stacked version fill the lower chamber first  $\frac{3}{4}$  full of Remag magnesium media.

Now that the reactor is full, clean off the O-ring on the top and put a thin wipe of silicon grease on the O-ring to make sealing easier.



On the side of the screw-on lid you will see three quick connect ports. They are from left to right:

- 1st Port: Blue line to the valve module effluent from reactor port
- 2nd Port: Yellow line with valve for purging reactor.
- 3rd Port: Yellow line to bottom of reactor for co2 recirculation.

Make sure all lines are pushed in tight.



You will now need to connect the red feed water supply line to the reactor. We suggest that the reactor is fed off of a return pump for a constant flow and good pressure. Connect the red hose from your water supply to the reactor blue handle inlet valve on the side of the reactor. Newer reactors are fed from the bottom of the reactor

Please mount the valve module close to the reactor and if you can mount it above the top of the reactor.

Connect the blue hose to the effluent to tank port on the valve module and let it drain back into your sump.

Connect your regulator to your co2 tank and be sure to use a sealing washer with the regulator for a good seal on the tank valve.

Connect the yellow hose from the regulator to the co2 in port on the valve module.

Connect the two pin connector on the top of the reactor to the red line coming from the valve module.

All your connections should be made now and you are ready to purge the reactor.

#### Purge reactor

Open valve on middle port of reactor cap and connect a line to the port going to your sump.

Turn on the inlet valve with the red hose and let the reactor fill with salt water from your tank. Make sure you have the lid screwed on while doing this.

Once the reactor fills up and water starts coming out of the middle port line to the sump turn on the reactor recirculation pump by plugging it into an electrical outlet.

You will see a lot of air bubbles in the reactor now. Let the water continue to flow through the reactor for a half an hour until you see no more big air bubbles in the reactor.

You are now ready to run the reactor.

Close the inlet valve on the side of the reactor.

Turn on the co2 tank regulator and with the controller unplugged set the outlet PSI on the regulator to 10 PSI.

Now plug the controller in and you will hear the co2 valves open and co2 will start to flow out of the yellow line on the co2 to reactor port of the valve module.

Unplug the controller now and the co2 flow will stop.

Now close the purge valve on the top of the reactor..

Turn on the water inlet valve and be sure the recirculation pump is running.

Make sure the co2 tank valve is open

Plug in the controller and wait for the magic to happen.



On the controller you will see two numbers, the top number is how long the reactor output is active and the bottom number is how long it is not active or closed for.

Your unit should come from us with a 2 on top and a 200 on the bottom. This is a good starting setting for most people.

After a few minutes you will see a few seconds of flow out of the blue line going into the sump.

If you do not see anything when the lower 200 number reaches zero then you might need to reset the controller parameters.

If your controller is not counting down or the

numbers stop moving after setting up the unit you will need to reset the controller parameters. To do this press and hold the set key until you see the top spot say P0, on the bottom it should say 0 if it does not use the arrow keys to set it to zero and then do nothing for a few seconds and the controller will reset to operation. Now press and hold the set button again until P0 shows at the top, now press set again fast and you will see P1 at the top, the bottom number should be 5. If it is not set it to 5 using the arrow keys and the leave it alone for a few seconds to restart.

You will now see the unit counting down.

After the reactor has been operating for a few hours you will see bubbles inside of the reactor which is normal for operation.

Check the alkalinity in your tank. If it is going down, increase the top number by one until you see the alkalinity become stable at your desired set point.

To change the top number press the set key once and the top number will blink, use the arrow keys to set the desired number and then leave it alone for a few seconds to reset and start working again.

If you alkalinity is getting too high do the opposite, if your top number is set to 1 and it is still getting too high increase the bottom number by 100 until the reactor is not keeping up with your alkalinity demand in the tank and the start increasing the top number until it does.