# Carbon Regulator

# Quick Guide

This manual will guide you how to setup and run the Carbon Regulator.



*Illustration 1: CarbonRegulator* 

# Egenskaper:

- Blue aqua LEDs for presentation of pH value
- User-friendly calibration
- Simple to setup and handle
- Display pH level 2-14
- Accuracy 0.1 in pH
- Stability > 0.1 pH
- High stability even when KH is below 1
- Works with all 12V DC gas valves
- Works with all standard pH probes using BNC connector
- Acoustic alarm warning system
- Anti software freezing control (Aviation Computer Security)

### **Assembly instructions**

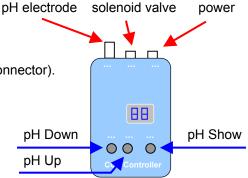
☐ Connect the pH electrode to the CarbonRegulator (BNC connector).

☐ Connect the power plug to the CarbonRegulator.

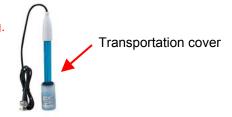
□ Press button labelled "pH show" and the LED display will light for 5 seconds showing pH value.

☐ Connect the valve plug to the CarbonRegulator.

The unit is now ready to run.



Remove the transportation cover of the pH electrode before using.



#### Show pH in the aquarium

Press button labelled "**pH show**" and the LED display will light for 5 seconds showing the pH value.

### Show / Set wanted pH in the aquarium

□ Press button labelled "**pH up**" or "**pH down**" and the CarbonRegulator will show you the wanted pH value for 5 seconds.

If you wish to change the wanted level, keep pushing the button and the level will increase or decrease.

#### Set the valve time

When you keep pushing the button "**pH Show**" for 10 seconds the display will show L7, L6, L5, L4, L3, L2, L1. L7 to L1 represent the maximum time (seconds) the solenoid vale is open.

The valve time is a fine tuning option you can perform to trim the gas flow (CO2) for your aquarium. Default value is L5 (5 seconds).

This means that the solenoid can be open maximum 5 second for each time it is activated.

L7 means 7 second and L1 means 1 second.

Most often it is more gentle to inject gas shorter time and more frequently than to inject longer time (7 sec) and not so frequently.

A smaller tank 10 gallon (40 litre) works better with shorter time L1 or L2, while 50 gallon (200 litre) could use L5 to L7

L7 to L1 valve time is not critical, L5 will work well with all aquarium.

#### How to set L7 to L1?

It is very simple, release the button at the wanted (L7 to L1) time and the settings is done.

#### Turn ON/OFF the Acoustic alarm

□ Keep pushing the button "**pH Show**" for several seconds. The display will first display the actual pH value and after 10 seconds the display will show L7, L6, L5, L4, L3, L2, L1, "blank display" then A0, A1.

If you release the button when display show "A0" the Acoustic will be turned OFF.

If you release the button when display show "A1" the Acoustic will be turned ON.

## Calibrate the CarbonRegulator

Our Carbon Regulator makes the procedure very simple:

Put the pH probe into one solution e.g 4.0 and push the button "pH Show".

Keep pushing the button "pH Show" and at the same time push the button "pH Down".

The display will now show "PL" and you can release the buttons.

The Carbon Regulator has now measured the reference of the 4.0 solution and stored the result into its memory.

Put the pH probe into the other solution e.g 7.0 and push the button "pH show".

Keep pushing the button (6) "pH Show" and at the same time push the button "pH Up".

The display will now show "pH" and you can release the buttons.

The Carbon Regulator has now measured the reference of the 7.0 solution and stored the result into its memory

(All calibration is saved in memory even if power is turned off.)

Calibration is now done.

During calibration it can be very good to wash the pH probe with deionised water before you put it into the different solutions. You do not want to contaminate the solutions with each other and get wrong calibration.

All Carbon Regulator comes pre-calibrated and needs no trimming.

### **Factory Reset**

All Carbon Regulator system comes with pre stored calibration settings.

It is very simple to reload the factory settings:

Keep pushing the button "pH Show" for 30 seconds.

When pushing the button "**pH Show**", the display will first display the actual pH value and after 10 seconds the display will show L7, L6, L5, L4, L3, L2, L1, "blank display" A0, A1 and finally after 30 seconds the display show "**FF**".

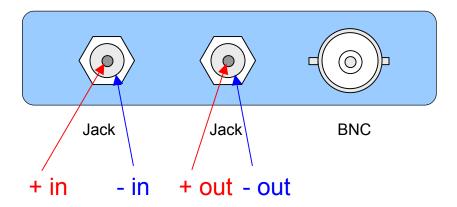
When Display shows "FF" you can release the button.

All factory values are back into the system and you have a factory calibrated working

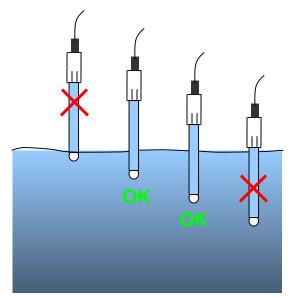
If you have any questions, you are always welcome to e-mail us at info@rfcandy.biz.

# Connections short side

Power 12V Solenoid Valve pH probe



# Place pH Probe



The pH probe should be placed 1/3 to 2/3 in the water.