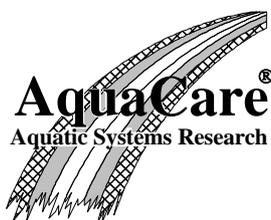


Systems for  
Aqua Culture, Aquarists,  
Laboratories and  
for Water Treatment



AquaCare - Aquatic Systems Research e.K.  
Josefstraße 35-37  
D-45699 Herten  
Tel.: 0 23 66 / 32 55 2; Fax: 0 23 66 / 10 43 85  
<http://www.aquacare.de>; e-mail: [info@aquacare.de](mailto:info@aquacare.de)

## Instruction Manual

# *Turbo Chalk Reactor Control*

for all AquaCare *Turbo Chalk Reactors*

### 1. Function and Mounting

This control is only made for AquaCare Turbo-Chalk Reactors. This control is for the automatically supply of CO<sub>2</sub> into the reactor. It has following parts: control unit (black box), magnetic valve, check valve, CO<sub>2</sub> sensor, transformer and mounting material.

For mounting please take the black box and fix it with two of the four stainless screws. The both other screws are for the mounting brackets (gray clips). Fix the magnetic valve (**arrow up to down!!!**) with the clips; the flow direction is very important. Otherwise the magnetic valve would be destroyed. Below the magnetic valve, the check valve (black) has to be mounted. The flow direction is important, too (arrow up to down). Use the black pressure tube for connecting magnetic valve with check valve and check valve with input CO<sub>2</sub> at the bottom of the CO<sub>2</sub> tube of the reactor.

Above the magnetic valve you should install the tube to the CO<sub>2</sub> pressure tank.

**Attention! Magnetic valve and check valve must have the right flow direction! Otherwise magnetic valve and CO<sub>2</sub> pressure tank could be destroyed.**

Now connect the CO<sub>2</sub> sensor (gray) to the CO<sub>2</sub> tube of the reactor. Therefore put the water out of the reactor, unscrew the 3/4" caps from the gray PVC muffle. The wires of the sensor should be at the top of the sensor - otherwise the control doesn't work. Connect the wires with the control (you need a screw driver for it). Connect the transformer wire with the control, too. Do not connect the transformer with a 220-230 Volt supply until now!

Take the reactor in action as usual. If the reactor is full of water, connect the transformer with the power supply. Open the CO<sub>2</sub> pressure tank. And open the CO<sub>2</sub> valve slowly (5-10 bubble per second). If the CO<sub>2</sub> reaches the gray muffle of the CO<sub>2</sub> tube, the control would shut the magnetic valve after additional 20-30 seconds.

The transformer should be in the same timer circuit as the chalk reactor pump.

**Attention! The magnetic valve gets very hot!**

### 2. Warranty

You have 12 months warranty on all AquaCare units except spare parts like air stones, pump parts and granules. You have no warranty if parts are broken by violent (for

example totally closed water inlet; wrong power supply; CO<sub>2</sub> pressure above 7 bar). If you send a warranty unit to AquaCare please send the dated receipt, too.

### 3. Technical data

power supply for transformer..... 230 V AC 50/60 Hz  
operation voltage of control ..... 24 V AC 50/60 Hz  
power consumption (magnetic valve off / on)... 0,3 / 10 W  
type to CO<sub>2</sub> sensor ..... level switch

magnetic valve..... 24 V AC, 50/60 Hz, 7 W  
mass ..... 1,0 kg  
connector magnetic valve..... 6 mm (1/8")  
connector CO<sub>2</sub> sensor ..... 3/4"