

CO₂ Junior Kit

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User Instructions

Aquatic Nature®

Dear customer,

We congratulate you for the purchase of your CO₂ Junior Kit. Aquatic Nature developed this new type of CO₂ system for several reasons. First of all, for the wellbeing and the flourish growth of aquarium plants, thus preventing the accumulation of phosphates (PO₄) and of nitrates (NO₃) in the aquarium. Secondly, to increase the ease of use and to bring a very high degree of accuracy. The disposable cartridges were selected because they are completely recyclable, easy to handle and without any danger. While designing the Junior Kit, we have taken additional measures to ensure your safety. We have added a security outlet in the regulator (beneath the V-shape). This permits an escape of the CO₂ gas, should you, **by accident or negligence**, unscrew the cartridge/bottle (while under pressure) from the regulator (**fig 17**). The aesthetic aspect was studied to obtain a system with a functional design. The perfect adjustment gives you the possibility of distributing CO₂ for each aquarium going from 10 L up to 250 L, and this at high precision. To guarantee a good service, each apparatus was controlled before being packed. Aquatic Nature developed an adaptor, permitting the use of bigger bottles. This adaptor can be ordered under Art. N° 02 728. For your safety, no disassembling of the fixed parts may be carried out. This leads to void of warranty.

ADVICE ABOUT THE PLANTS : The quality of water and lighting is very important for a perfect assimilation of CO₂ by the plants. The use of Professional Glass Diffusor is recommended for the aquariums having a dense or very dense plantation. A greater quantity of CO₂ is then diffused in an optimal way. CO₂ is not recommended to decrease the pH over a short period. This occurs automatically in the long run.

NOTE OF SAFETY

- Keep out of reach of children.
- The kit must not be placed in direct sunlight or close to a heat source, It is absolutely necessary to avoid temperatures above 40°C.
- Once connected and in function the kit stays on his place and should not be moved.
- Important : the cartridge/bottle must not be unscrewed during function or when still containing gas in the bottle, this could cause severe damage if the outlet is blocked (**fig. 17**).

Once the cartridge/bottle is empty, no more CO₂ is added. The green needle on the manometer is now in the yellow field. The pressure gauge shows the current pressure of CO₂ in the cartridge/bottle. Use only Aquatic Nature 80 g (Article N° 02 720) or 95 g cartridge/bottles (Art. N° 02 722). When using other bottles, you are likely to damage the threading of the pressure regulator.

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INSTRUCTIONS

Choose the place where you will install your Junior CO₂ Kit (preferably beside the aquarium) or if necessary below the aquarium.

a. A two-sided sticker is at the bottom of the bottle holder. This sticker is used to ensure the position and stability of the system CO₂. Remove the paper of the sticker (**fig. 1**) and place the bottle holder in a place of your choice. Caution: once the sticker placed, you will not be able to move the bottle holder any more. For reasons of safety and to ensure an optimal adjustment, the CO₂ cartridge/bottle must always be placed in the bottle holder on a flat and horizontal surface.

b. Take the pressure regulator and close it by hand, turning it in the clockwise direction (**fig. 2**).

c. Take the CO₂ cartridge/bottle. Check if there is no dust or dirt in the threading of the pressure regulator or on the thread of the cartridge/bottle. Clean if needed, by blowing strongly. Now connect it to the pressure regulator while turning the bottle clockwise until you feel a light resistance. At this time, the bottle is against the bottle pressure part. Keep on turning until the cartridge/bottle is tightly fixed (**fig. 3**).

ASSEMBLY

Take the pressure regulator, remove the bolt from the pressure regulator (**fig. 4**) and slide the bolt over the special CO₂ tubing (**fig. 5**). Now place the special CO₂ tubing with the bolt back over the pressure regulator (**fig. 6**), and tighten it firmly by hand (**fig. 7**). The assembly of the pressure regulator is now complete.

Check-Valve : The check-valve is placed on the side of the aquarium, with the arrow pointed upward. To easily slide the special CO₂ tubing over the check-valve and afterwards on the bubble counter, we recommend making the tubing wet with lukewarm water. Now connect the check-valve at the bottom with the special CO₂ tubing (**fig. 8**). Connect a piece of CO₂ tubing (2 - 3 cm length) over the top of the check-valve. Now attach the filled bubble counter.

Bubble Counter : Inside the bubble counter, you'll see an upright tube (**fig. 9a**). The upright tube position goes into a glass filled with water. Let it fill for ¾ with water (**fig 9b**). Take the bubble counter out of the glass, and keep your finger on the opening at the top, so the water doesn't run out (**fig. 10**).

Now connect the bubble counter on the check-valve (**fig. 11**). Attach the now connected bubble counter/check-valve with suction cups to the aquarium on a visible place (**fig. 12**). Caution: the Check-Valve and the Bubble-Counter must thus be handled with the greatest prudence. While assembling, never use excessive force, this could cause damage.

Ceramic diffuser : Determine and cut the length of the special CO₂ tubing you need to install the ceramic diffuser at the bottom and in the front of your aquarium. Now connect it to the bubble counter (**fig. 13**). The ceramic diffuser is assembled with a small elbow, supplied with the Junior Kit. This permits a horizontal placement, thus optimizing the distribution of CO₂ (**fig 14 & 15**). A suction cup is also supplied, to easily attach the diffuser to the aquarium. The placement in the aquarium in the front and just above the layer of gravel enables you to check on the distribution of CO₂ (**fig. 16**). Caution : make sure the special CO₂ tube is never folded.

INSTALLATION : As seen earlier, you will find the button of adjustment on the top of the regulator. While slightly turning the button anti-clockwise, you open the regulator and CO₂ will be released. Wait a few minutes until small CO₂ bubbles gently leave the ceramic diffuser and go up slowly towards the surface. It is important that CO₂ is released in tiny bubbles. Remaining as long as possible in contact with water, thus helping an optimal dissolving process, in which plants can assimilate a maximum of dissolved CO₂. The finer the bubbles, the easier they will be dissolved. The quantity of CO₂ used will be optimised and the best assimilation will be achieved for all water plants. It is important to follow the above instructions. When, after 5 minutes, no CO₂ comes out the ceramic diffuser, turn the button some more anti-clockwise. Do not forget to stop the CO₂ diffusion when lighting is out. Indeed, light is the source of the aquarium plants and they start their photosynthesis process. Now a distribution of CO₂ is required. Thus, plants do not assimilate CO₂ when light is off. Keep this in mind every time you turn the lighting on or off.

Important : After closing the pressure regulator, the ceramic diffuser still emits CO₂ for a short while. This is absolutely normal, the remaining CO₂ in the tubing is still under pressure. In the morning the reverse happens : after opening the pressure regulator, it can take a while before CO₂ is released. This procedure is ideal for the photosynthesis process, because the plants are not capable of assimilating CO₂ immediately after the light is switched on. If the ceramic diffuser stops emitting small bubbles, then this indicates the cartridge/bottle is empty. You can control this by checking the pressure gauge.

Good to know : Because we don't know the volume of the aquarium that the Juinor Kit will be connected too, all the kits are equipped with the same ceramic diffuser.

The small ceramic diffuser is appropriate in most cases. But for the large aquariums, it is advisable to use a diffuser adapted to the volume of the aquarium. 3 different sizes of diffusers are available from Aquatic Nature. Their capacity varies and can be used for aquariums up to 300 L. For example, for an aquarium with 60 L, the glass diffuser 40/60 (Art. N° 02710) is recommended, for an aquarium with 100 L, the glass diffuser 80/120 (Art. N° 02712), and for an aquarium with 140 L, the glass diffuser 120/200 (Art. N° 02714). The small ceramic diffuser (art. N° 02 708) is also very useful ,for ex. when the glass diffuser has to be rinsed. For any information concerning the cleaning of the glass diffuser or ceramic diffuser, contact your retailer.

MAINTENANCE

Bubble Counter : From time to time, check the water level in the Bubble-Counter , and refill it when needed.

Ceramic diffuser : All diffusers have to be cleaned from time to time, depending on the parameters of the water. For example with hard water there is a greater limestone presence, and the diffuser can get blocked. For more information, contact your specialist dealer. There is a cleaning method.

Special CO₂ tubing: Only use the special CO₂ tubing from Aquatic Nature. Use of another type of tubing will inevitably lead to a disruption of the check-valve's function, with a greater release of CO₂. We are not responsible for damages occurred in this way.

WARRANTY

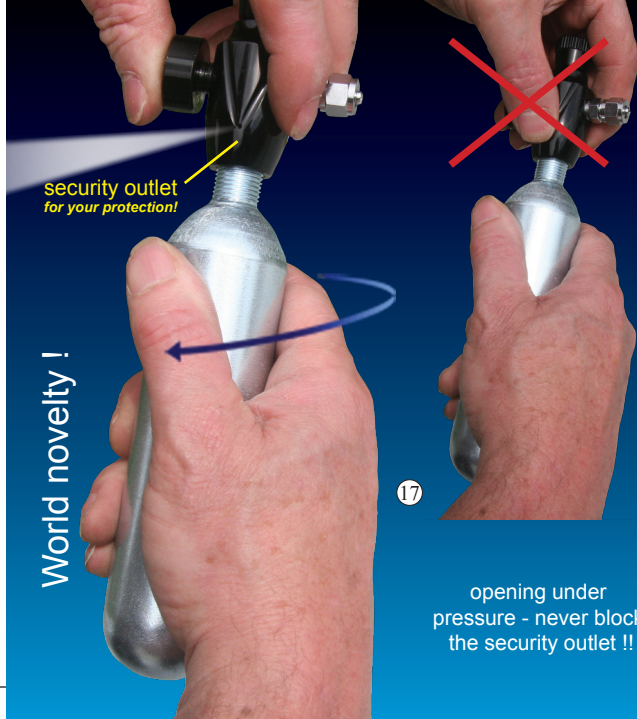
WE GIVE 24 MONTHS WARRANTY FROM THE PURCHASE DATE ON THIS AQUATIC NATURE CO₂ SYSTEM. The warranty covers all material and production faults. The warranty covers only the value of the product.

Not included in this warranty :

- Incorrect treatment or dismantling, or insufficient warning of the CO₂ System.
- Damages caused through dirt or misconduct.

In case of a defect CO₂ System, send it ,carefully packed, back to your retailer.

THIS WARRANTY IS ONLY VALID WITH PURCHASE TICKET AND SIGNATURE OF YOUR RETAILER.



security outlet
for your protection!

World novelty !

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opening under
pressure - never block
the security outlet !!



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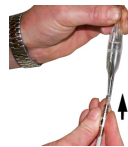
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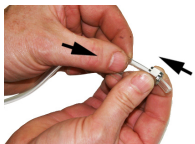
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