

# Instruction Manual

Powered by HYDRO-PURE TECHNOLOGY

Hydro-Pure Technology is a patented water detoxifying and depurating technology for applications in freshwater Aquatic Hobby. It consists of two electro-plates to energize a cartridge box containing special Cata-pure Catalyst Media to generate strong reactive Hydroxyl radicals ( $\cdot\text{OH}$ ), which is the key to the detoxifying and depurating reactions process.

Hydro-Pure Technology creates safe and stable pristine “Hydro-Pure Water” similar to that of natural river stream rich in micro nutrients and minerals.

By constantly pushing the ionization of toxic Ammonia  $\text{NH}_3$  into non-toxic Ammonium  $\text{NH}_4^+$ , it thus greatly prevents fish kill due to toxic Ammonia. Ammonium cannot be absorbed into the fish gills. It also helps to oxidize toxic Nitrites  $\text{NO}_2^-$  to non-toxic Nitrates  $\text{NO}_3^-$ , keeping it stable and at a safe level.

With continuous usage, the Total Ammonia Nitrogen ( $\text{NH}_3$  and  $\text{NH}_4^+$ ) will eventually become free Nitrogen  $\text{N}_2$  and water  $\text{H}_2\text{O}$ .

Hydro-Pure Technology can also prevent cloudy water by the ionization of solid precipitation present in the waters. It also removes bad smell by the oxidization of Sulphur-based products which causes smell in the water.

Hydro-Pure Technology is suitable for freshwater fish tanks of all sizes, all types of fishes, water plants and all levels of stocking density. It also helps in the prevention of “New Tank Syndrome”. Also suitable for all applications that requires pristine water condition of safe and stable level of Ammonia, nitrites and nitrates acceptable for aquatic life.

## Frequently Asked Questions about Hydro-Pure Technology Products

1. Why does my Ammonia Test Kit read high levels of Ammonia after using the Hydro-Pure Technology products?

Do not panic. Most Ammonia Test Kits in the market measures Total Ammonia Nitrogen (TAN). They measure the total sum of toxic Ammonia ( $\text{NH}_3$ ) and non-toxic Ammonium ( $\text{NH}_4^+$ ) in the water.

Hydro-Pure Technology detoxifies Ammonia ( $\text{NH}_3$ ) by constantly pushing the ionization of toxic Ammonia  $\text{NH}_3$  into non-toxic Ammonium  $\text{NH}_4^+$ , thus greatly preventing fish kill due to toxic Ammonia. Therefore, it is normal that these test kit results in high readings as they measure total sum of toxic Ammonia ( $\text{NH}_3$ ) and non-toxic Ammonium ( $\text{NH}_4^+$ ). Research has also shown that most aquatic plants are able to take in Ammonium directly for their nitrogen requirements.

Hydroxyl radicals are more reactive to Ammonia and Nitrites and may be oxidized to become Nitrates. If the initial amount of nutrients, Ammonia  $\text{NH}_3$  and Nitrite  $\text{NO}_2^-$  in the water is higher, they will be oxidized first, to become Nitrate  $\text{NO}_3^-$ . Therefore, there may be an initial rise of Nitrates, but

Aquarium water contains both organic and inorganic form of Phosphate  $\text{PO}_4$ . Hydro-Pure Technology has the capability to reduce organic Phosphate. However, Phosphate Test Kits available in the market are only able to test inorganic Phosphate. Algae only use organic Phosphate, so some algae and Cyanobacteria might be reduced due to lesser organic Phosphate.

The Cata-pure media can be continuously used for up to 12months. Regular interval of washing and rinsing is necessary to remove dirt within the cartridge. Replace the cartridges after every 12months for maximum performance.

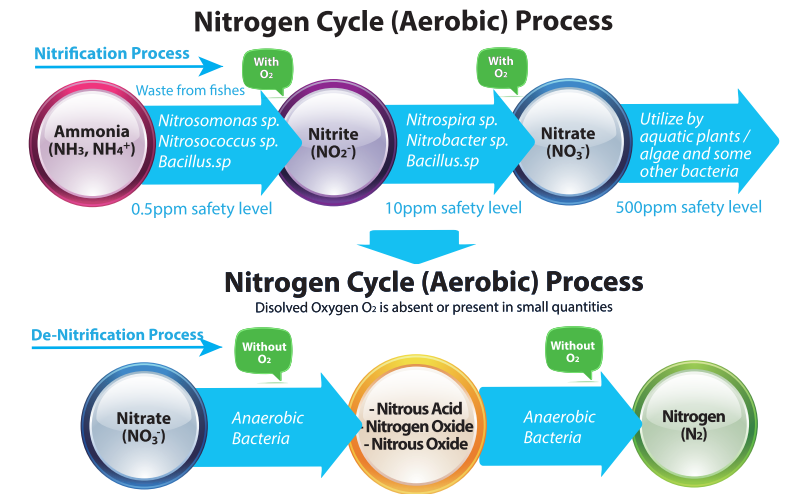
The Cata-pure is a carbon based media that has been specially formulated with to be conductive to work with Hydro-Pure Technology. Replacing Cata-pure with Activated Carbon will not work, and may even cause damage to the unit.

It is normal that one of the electro-plate's surface will become brownish, due to the chemical reaction deposits. Please clean the electro-plate's surface during maintenance.

Yes. A well balance nitrogen cycled planted tank may develop algae in the first few days of using Hydra due to the fast depletion of nutrients. It is advisable to partially change about 10% of the water to prevent algae growth. Hydra will stabilize the water quality thereafter.

It is ok to switch on Hydro-Pure Technology continuously. It will not affect the inhabitants inside the aquarium. When using fish medication, it is advisable (but not compulsory) to switch off the power of the Hydra stream. For Hydra Aquatic Depurator, you may remove the cartridge. Hydro-Pure Technology will reduce the effects of medication.

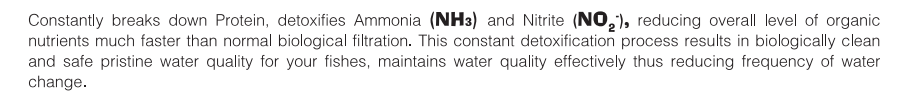
## Traditional Nitrogen Cycle Process



# Hydra STREAM

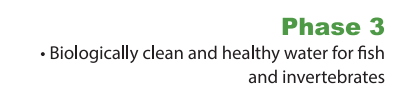
## AQUATIC DEPURATOR

## Hydro-Pure Technology Process



## Hydro-Pure Technology Processes

Maintains water quality effectively thus reducing frequency of water change.

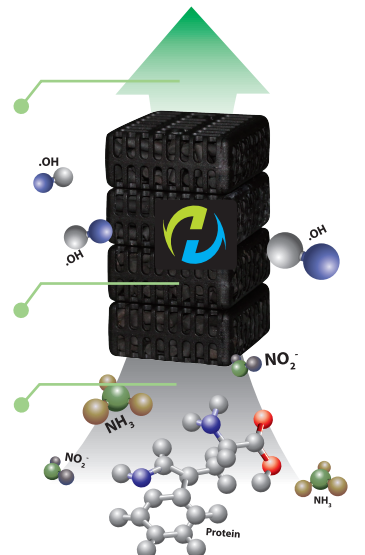


## Phase 2

- Cata-pure Media reaction produces reactive Hydroxyl Radicals ( $\cdot\text{OH}$ ) from water
- Hydroxyl Radicals ( $\cdot\text{OH}$ ) reduces Protein, toxic wastes, e.g. Ammonia ( $\text{NH}_3$ ) and Nitrite ( $\text{NO}_2^-$ ), and odour from Sulphur-based by-products

**Phase 1**

- Aquarium water containing Protein, Ammonia ( $\text{NH}_3$ ) and Nitrite ( $\text{NO}_2^-$ )



Technical Specifications

Model	Recommended Flow Rate L/h	Optimum Volume Of Water That Can Be Treated ( L )	Power ( W )	Cata-pure	Diameter x H ( mm )
FRESHWATER Hydra Stream 1	300~1000	For Tank < 300L	1.1W	4pcs	Ø85 x 295
FRESHWATER Hydra Stream 2	500~2000	For Tank < 600L	1.3W	6pcs	Ø85 x 335
FRESHWATER Hydra Stream 3	800~3000	For Tank < 1000L	1.5W	8pcs	Ø85 x 375

Pump not included

The Hydra Stream is the world’s first Aquatic Depurator powered by Hydro–Pure Technology. It greatly improves your existing aquatic filtration system by enhancing the natural filtration and detoxification processes by more than 50%. This constant detoxification process results in biologically clean and safe pristine water quality for your fishes, maintains water quality effectively thus reducing frequency of water change.

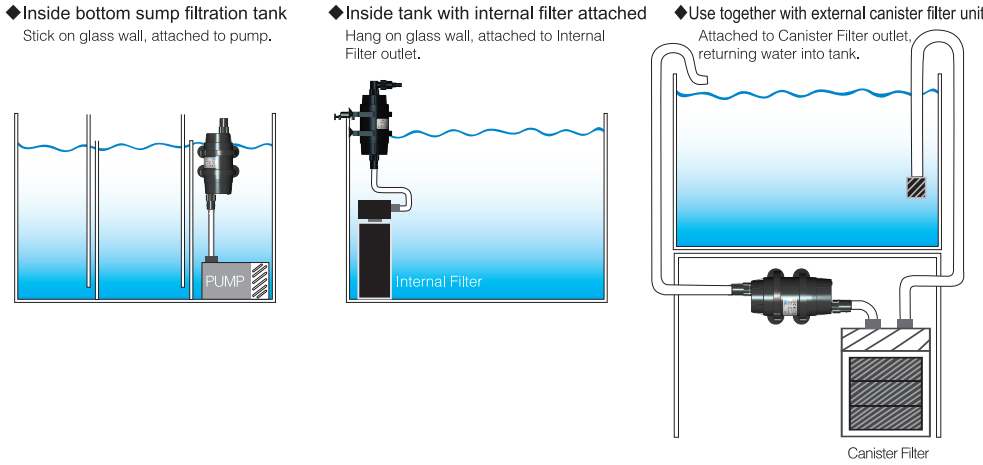
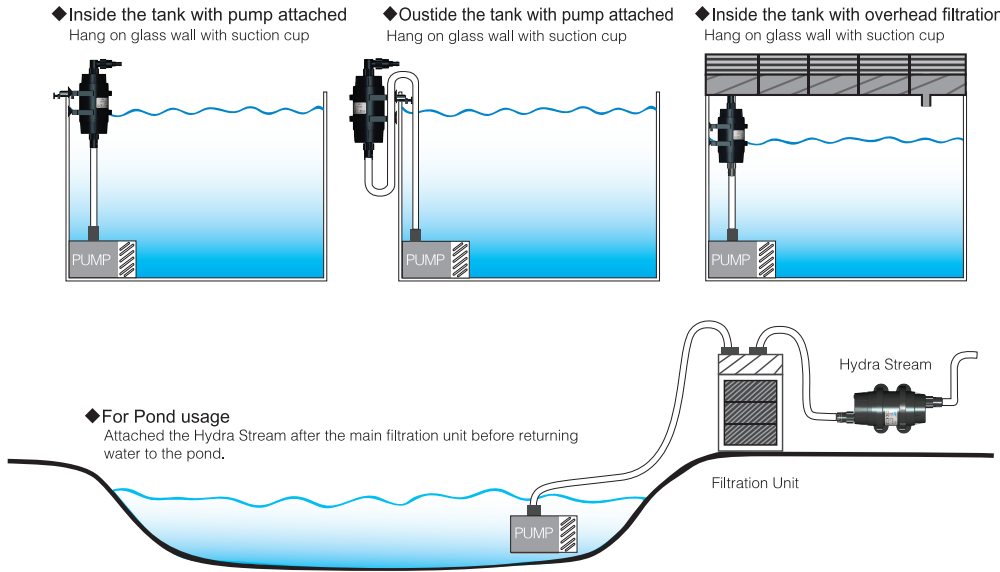
Safety measures:  
Do not use this device during any medication treatment .  
This product is for Freshwater Aquarium use only. Do not use in Marine water.

Safety Usage Instructions

Warning–To guard against injury, basic safety precautions should be observed, including the followings:  
Danger–As a safety precaution,always turn power off during maintenance or before any contact with water.For each of the following situations, do not attempt any repairs by yourself. Return the appliance to an authorized service facility for service or discard the appliance to avoid hazards:

- Once found it has any water leakage, please power off immediately.
  - Do not operate any appliance if it has a damaged cord or plug, if it is malfunctioning or has been dropped or damaged in any way.
- a). Please understand and comply with all safety instructions.
- b). The maximum operating depth of this appliance is 1M.
- c). The maximum inlet water pressure of this appliance is 40 Kpa.
- d). Ensure that the appliance is fixed firmly before operating it.
- e). Carefully examine the appliance after installation. To avoid electric shock, plug in the power only with dry hands. If you find the plug is wet, do not to plug in the power directly. Please dry it completely first before plug in.
- f). Always unplug an appliance from the power outlet when not in use or when making any adjustments or maintenance work. Never pull on the cord to remove the plug from the socket. Instead, grasp the plug and pull to disconnect.
- g). This product is designed for indoor use only. The allowable environment operating temperature is from 0 to 55 degrees centigrade.
- h). Do not use this appliance other than for the intended use.
- i). Not recommended to be use with other brands of accessories as it may cause an unsafe condition.
- j). If an extension cord is necessary, a cord with proper rating should be used. A cord rated for less amperes or watts than the appliance’ s rating may cause the cord to overheat and burn. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
- k). A ‘drip-loop’ ,shown in the figure below, should be arranged by the user for each cord connecting an aquarium appliance to the receptacle. The ‘drip-loop’ is the part of the cord below the level of the receptacle, or the connector if an extension cord is used, to prevent water travelling along the cord and coming in contact with the receptacle.
- l). Close adult supervision is necessary when any appliance is used by young children.
- m). Please note that the Cata–Pure Cartridge is NOT ACTIVATED CARBON/CHARCOAL, do not attempt to replace this cartridge with activated carbon/charcoal, otherwise it will damage the equipment.

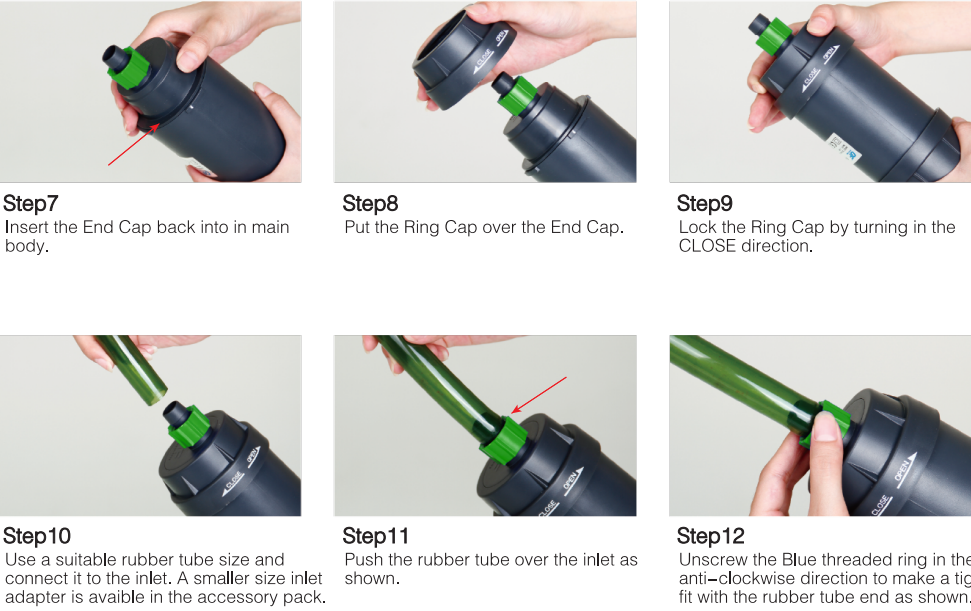
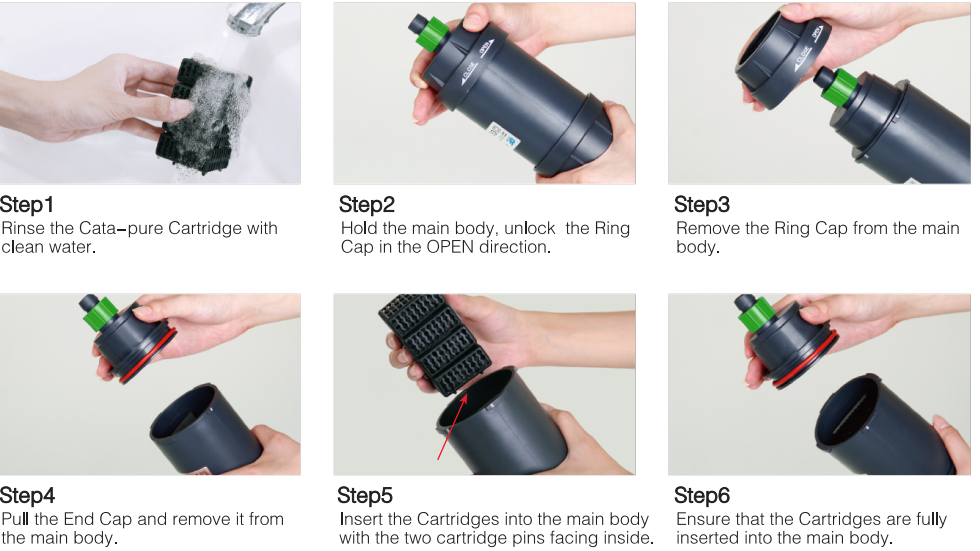
Various ways to use the Hydra Stream



General Maintenance of the Cata–pure Cartridge

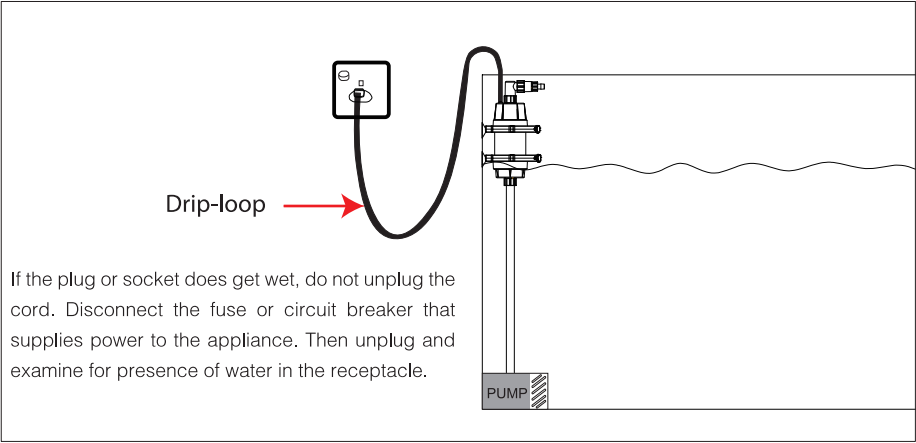
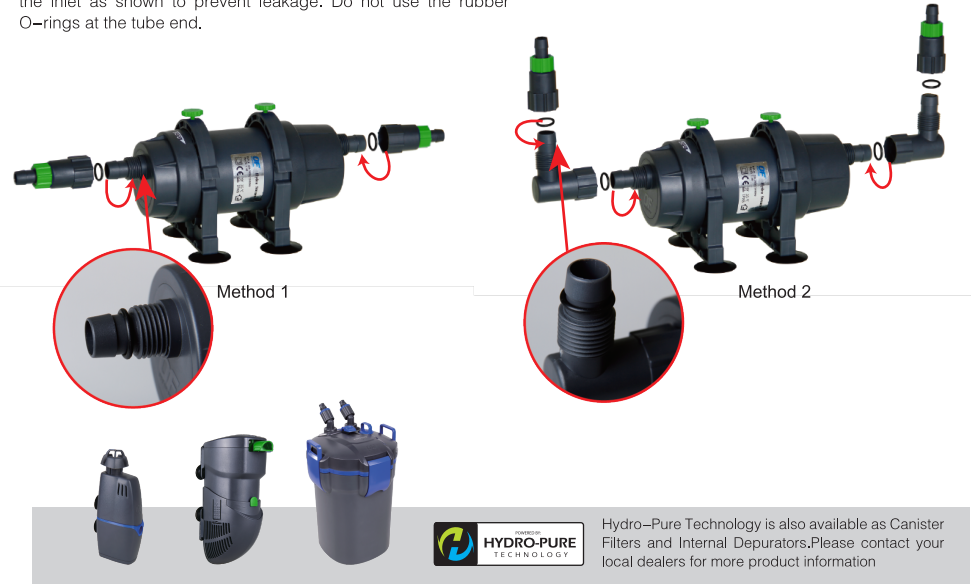
To keep your Hydra at optimum functioning level, rinse and wash the Cata-pure Cartridge to prevent any clogging or blockages (depending on the organic loading, on average you may want to wash the Cartridge once a month or when the flow is decreasing significantly). Follow the steps as shown below accordingly to remove the Cata-pure Cartridge, in reverse to place back the cartridge.

Each Cata-pure Cartridge has an effective lifespan of approximately 12 months of usage. Please purchase and change the cartridges to ensure continuous effective operation of the Cata-pure.



Instructions on using the inlet adapters

Note: When using the adapter, please put the rubber O–ring over the inlet as shown to prevent leakage. Do not use the rubber O–rings at the tube end.



IMPORTANT INFORMATION:

Hydra Stream is powered by Hydro–Pure Technology, a state–of–the–art technology developed by Qian Hu Corp for aquarium use. Cata–pure Cartridge is the active Hydro–Pure media that drives the whole system. THIS IS NOT ACTIVATED CHARCOAL OR CARBON , thus do not replace this with any other media other than the one purchased from our authorized dealer. Any incorrect replacement will result in inactivation of the Hydro–Pure system.



Another quality product from:  
**Yi Hu Fish Farm Trading**  
( a subsidiary of Qian Hu Corporation Limited )  
71, Jalan Lekar, Sungei Tengah, Singapore 698950.  
Fax: (65) 67647077 e-mail: yihufish@qianhu.com

<http://www.yihufish.com>

