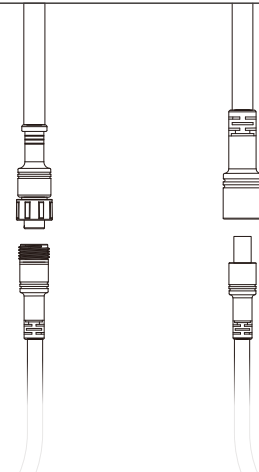
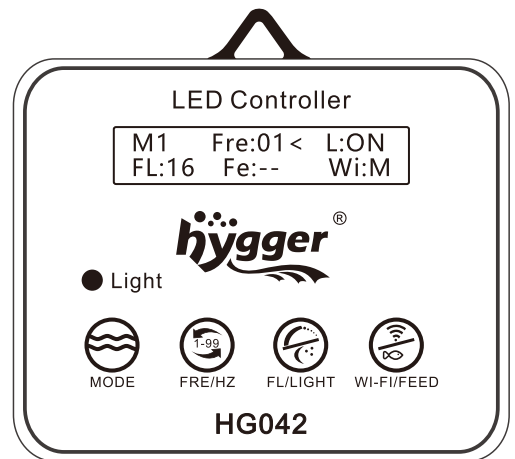
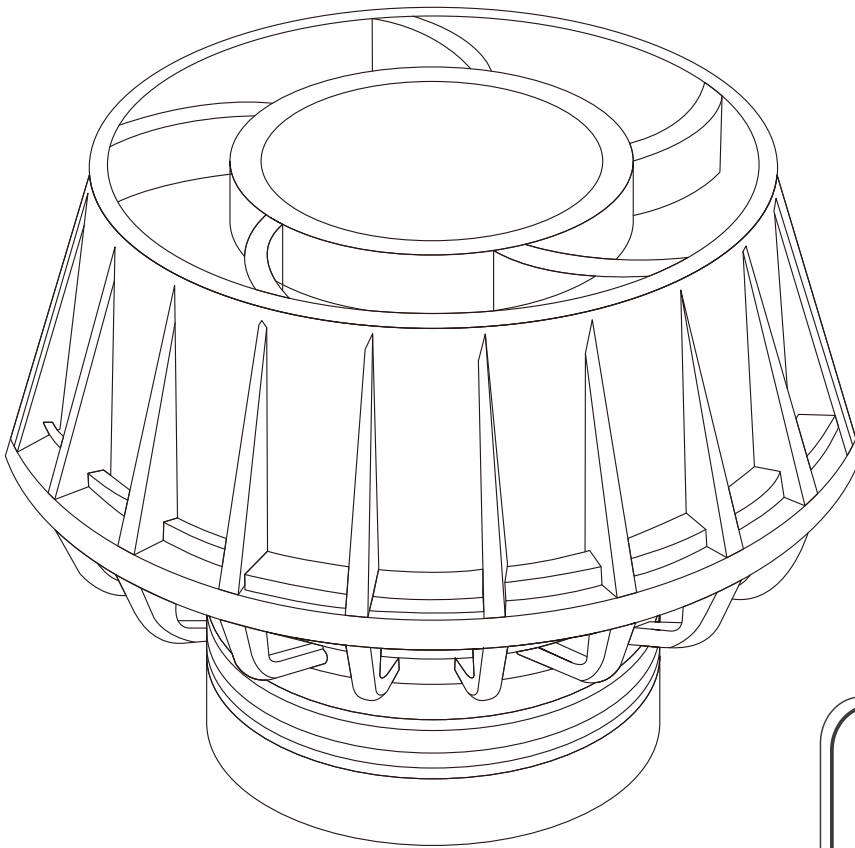




# HG042 USER MANUAL

hygger aquarium inverter wave maker pump



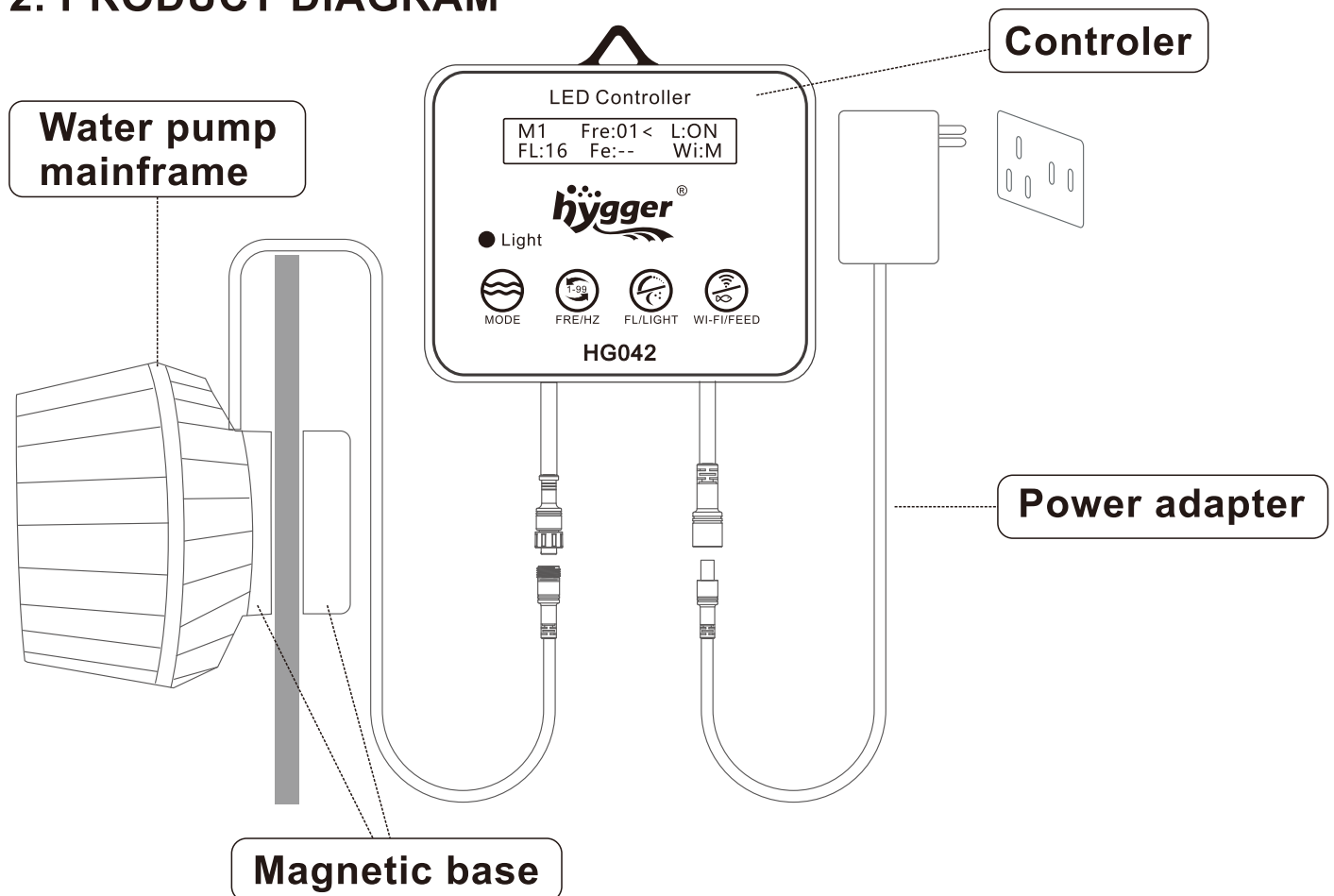
This product is an intelligent wireless linkage inverter ecological wave pump that can be built into the aquarium. It has an intelligent digital display controller, 6 wave-making modes, and flow rates. The wave frequency value can be adjusted, suitable for a 75-200 gallon aquarium, and the working voltage is DC24V. Safer for both users and creatures because the wave maker pump is externally controlled. No motor in the pump, greatly extending the life of the product. The size is mini but has a powerful wave-making function, with 18W power and a maximum flow rate of 3400GPH. This inverter wave maker pump is suitable for freshwater, saltwater, and coral reef tank. This is a super quiet aquarium wave pump controlled by sine wave technology that can also work wirelessly with multiple machines. The noise generated in the process of use is usually less than 30db. This product has a strong magnetic, which can be firmly fixed on the fish tank. Strong magnets are covered with rubber, with non-slip, to prevent damage to the surface of the glass fish tank. Suitable fish tank thickness can reach 15 mm, and it is easy to install.

\*\* Please read this manual carefully before using this product and keep it for future reference; follow the instructions to ensure proper use \*\*

## 1. PRODUCT FEATURES

1. Unique appearance, mini size but strong wave making ability, can be multi-machine wireless linkage control work.
2. Super quiet aquarium wave pump controlled by sine wave technology can also work wirelessly with multiple machines. The noise generated in the process of use is usually less than 30db.
3. Safer for both users and creatures: Working voltage is DC24V.
4. Intelligent digital display controller, 6 wave-making modes, and flow rates.
5. No motor in the pump, longer service life.

## 2. PRODUCT DIAGRAM



## 3. INSTRUCTIONS


1. Install the inverter wave maker pump in the fish tank.
2. Align the metal connector and connect the wave pump wires to the controller.
3. Power on.

4. Press the wifi/feed key to select the control type, Wi:N (Solo Mode), Wi:M (Lead Mode), and Wi:S (Follow Mode).




Note: When you select the mode Wi:S, the controller is in Lead Mode, and you cannot change any settings. If you have more than two controllers, you can set anyone's control to Wi:S and the other to Wi:M. The Lead Mode controller will control the Follow Mode, and both devices will make waves simultaneously. If you have only one controller, you can choose Wi:N or Wi:M as you like.

5. Press the first button mode to select the mode. There are 6 modes to choose from M1~M6.
6. Press the second button FRE/ME to select the frequency size, 01~99 grades are available.
7. Press the third button FL/LIGHT, select the flow rate, 01 ~ 20, a total of 20 gears optional. Button FL/LIGHT is a multi-functional button; long press this button for 3 seconds; you can turn on or off the light control mode, screen display L:ON night mode on, screen display L:OFF night mode off.
8. If you want to stop making waves and feeding, please press and hold the wifi/feed key for three seconds; the wave maker pump will automatically stop for ten minutes to feed. If you want to exit feeding mode, please press and hold the wifi/feed key for three seconds.
9. Screen protection function: no operation within 30 seconds; the LCD screen will go out. If you need to operate it again, please press the button to make the screen light up, and then press the button to use it again to be effective.

#### 4. DESCRIPTION OF CONTROLLER BUTTON AND DISPLAY

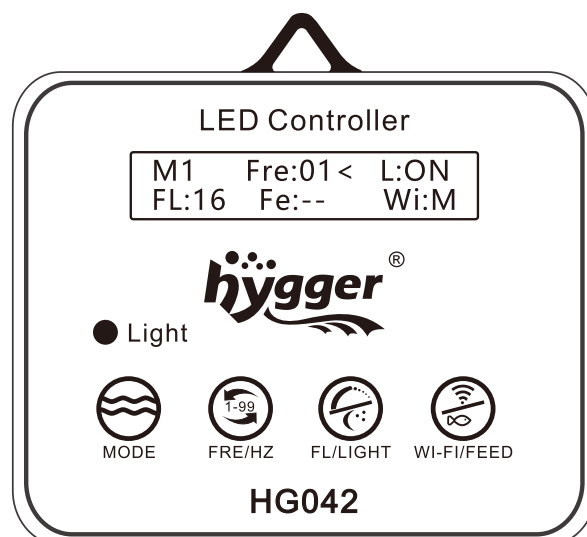
Button Diagram	Operating Instructions
	<p><b><u>Frequency value up/down and wave working mode button</u></b>            (Single press) Wave making mode button: If the screen shows "M1" (M1 ~ M6, that is, six wave modes can be cyclically switched)            (Press and hold for 3 seconds) Frequency value will be switched up or down: If the screen shows "Fre:55&gt;" ( "&gt;" means the adjustable frequency value is increased, "&lt;" means the adjustable frequency value is decreased )</p>



 <b>FRE/HZ</b>	<p><b><u>Frequency value selection button</u></b>  Frequency value selection button: If the screen display shows “Fre:01&gt;” (single press) single step adjustment 01~99 grade optional, (long press) 01~99 rapid increase or decrease.</p>
 <b>FL/LIGHT</b>	<p><b><u>Shared button for flow gear and night mode</u></b>  <b>Flow rate:</b> 01~20, a total of 20 gears are available;  <b>Night mode:</b> Press and hold for 3 seconds, and the screen display L:ON-- Night mode on  Press and hold for 3 seconds, and the screen display L: OFF-- Night mode off  <u>Note: The device automatically enters the night mode by light control induction. When entering the night mode state, the wave-making mode enters M1 constant current mode; the flow rate gear is automatically adjusted to the 01 lowest gear value. After exiting the night mode, it will automatically return to the original setting state; turn “Light:On” on and cover the light control light with your hand, and the flow will change to energy saving and power saving.</u>  Note: The light control mode can only be enabled if the controller is placed in the dark.</p>
 <b>WI-FI/FEED</b>	<p><b><u>Feeding mode and Wireless Linking share buttons</u></b>  <b>Feeding mode:</b>  Press and hold for 3 seconds: the screen display Fe:10. Enter feeding mode, and the machine stops working for 10 minutes. The display starts timing 10.09..00.  <b>Wireless Linking:</b>  Press once: The screen displays Wi:N: Standalone mode  Press once: The screen displays Wi:M: Lead Mode  Press once: The screen displays Wi:S: Follow Mode</p>

**\*\*Attention\*\***

1. When using this product, the fish in the tank must be larger than the net hole size so that your fish will not accidentally be sucked into the pump to be hurt.
2. The controller does not have a waterproof function and can not seep water to avoid possible electric shock and damage.
3. The pump cannot work away from the water; it must be completely submerged in water when it is working to avoid damage to the wave maker pump.



## 5. DESCRIPTION OF 6 WORKING MODE

Adjust button   
MODE

### 1. M1: constant flow rate working mode



Constant flow mode: The flow rate can be changed by adjusting the flow rate gear. Adjustable in 01-20 gears. The higher the value of the gear, the higher the flow rate.

Flow rate stall adjustment button:



FL/LIGHT

### 2. M2: Classic wave making mode



The flow rate can be increased or decreased in an instant and can be switched continuously.

The flow rate is changed by adjusting the flow rate stall. Adjustable in steps 01-20. The higher the value of the gear, the higher the flow rate.

Flow rate stall adjustment button:



FL/LIGHT

Adjusting the frequency value of the gear can instantly increase or reduce the speed of change. Adjustable in 01-99 steps. The smaller the value of the gear, the faster the difference; the larger the value of the gear, the slower the change. The frequency value influences the speed of change.

Frequency value gear adjustment button:



FRE/HZ

### 3. M3: Classic reverse wave making mode



Classic reverse wave making mode: For simultaneous use of two wave maker pumps, with the same wave effect as the M2 classic wave mode. The two wave pumps are divided into a master wave maker pump and a servant wave maker pump, which work in opposite directions. (When the master one ends, the servant one starts to work, and so on, imitating the state of continuous wave circulation in the ocean) The wave effect data adjustment of the wave maker pump is the same as M2; the speed of change is affected by the frequency value; the larger the frequency value, the slower the change.

#### 4. M4:Sine flow creation mode



Sine flow mode: the flow rate increases slowly; the flow rate value is like a sine function and decreases gradually when it reaches the maximum value. The frequency value influences the speed of change. Adjustable from 01-99. The smaller the value, the faster the change; the larger the frequency value, the slower the change.

Frequency value gear adjustment button:



FRE/HZ

#### 5. M5:Random flow creation mode



Random flow creation mode: the flow rate changes randomly within a specific range. The frequency value influences the speed of change. Adjustable in 01-99 gears. The smaller the value, the faster the change; the larger the frequency value, the slower the change

Frequency value gear adjustment button:



FRE/HZ

#### 6. M6:Single-sided switching of wave making mode



**Single-sided switching wave mode:** Mainly applicable to using two wave maker pumps simultaneously, it can also be used when there is only one pump.

**With one wave maker pump:** The wave maker pump will enter the working gap system. Depending on the set working time, it cycles work-stop-work-stop.

**Two wave maker pumps are used simultaneously:** the master wave maker pump and the servant wave maker pump work precisely opposite, i.e., the master one works, the servant one stops, the servant one works, and the master one contains.

#### **Note:**

**A.** Adjust the flow gear to change the flow rate. Adjustable in 01-20 gears.

The larger the gear value, the larger the flow rate.

**B.** Working and stopping time is the same; working for 1 minute will stop for 1 minute. Time adjustment through the frequency value gear adjustment, Fre:01~Fre:99

Display value unit: minutes. That is, Fre:01 refers to 1 minute, and Fre:99 refers to 99 minutes.

## **6. WIRELESS LINKING**

One wave pump can be paired wirelessly to Lead or Follow other pumps, in addition to running Solo on its own. For example, if you have 2 pumps, and set one to Lead, and one to Follow, the Follow pump will automatically switch modes and enter feed timers when prompted by the Lead controller. If you have pumps you want to run independently, simply set them to Solo mode.

### **Instruction:**

Press the Wireless Linking button once, and the screen displays “Wi:N:” the controller is in Solo Mode.

Press the Wireless Linking button once, and the screen display “Wi:M:” the controller is in Lead Mode. The controller with “Wi:M” on the screen is the master controller and can adjust all parameters.

Press the Wireless Linking button once, and the screen display “Wi:S:” the controller is in Follow Mode. When the controller is in the Follow Mode, all parameters are not adjustable, and the buttons are disabled. The settings of all parameters change with the adjustment settings of the master controller. If you want to restore the controller button role, switch to the Solo Mode or Lead Mode.

### **Note:**

Please place two controller nearby within 15 meters to receive signal.

## **7. DESCRIPTION OF MEMORY FUNCTION**

Memory function has various modes: power-off memory working mode, flow gear, wave-making frequency value, light control selection, Wireless Linking, etc. Feeding mode and feeding time are no longer remembered after power failure. The rated working voltage under this function is DC24V. The wave maker pump will start slowly within 10 seconds.

## **8. ATTENTION**

1. The wave maker pump must work according to the marked voltage and frequency range. Please do not use voltage and frequency other than those specified to avoid damage.

2. Avoid letting the water maker pump idle or leave the water to work for more than 5 minutes. When the product is working, it must be completely submerged in water to ensure that the product stays cool. It cannot be exposed to water. Otherwise, it will cause permanent damage to the product.
3. This product is suitable for freshwater or seawater. Do not put it in flammable liquid, acidic liquid and corrosive liquid.
4. This product can work in a clean environment within the water temperature range of 32 to 94 degrees F. Otherwise, it will cause damage to the product.
5. Please don't lift the product directly with the power cord; the power cord may be pulled off.
6. If the product's power cord is damaged, please do not continue to use this product to ensure safety.
7. If the product's power cord is damaged, please do not continue to use this product to ensure safety.
8. Because the controller is not waterproof, it cannot be placed in water or a humid place. The controller is also not recommended to be placed in a dark space for a long time, or it may cause the night mode function to fail.
9. The wave maker pump has a strong magnet behind the mainframe and magnetic seat, so when using it, please avoid magnet suction and be careful to pinch your hands.
10. When not used, you must put it back in the original box to separate the storage. Because of the strong magnetism, it needs a strong external force to separate after being sucked together.

## **9. TROUBLE SHOOTING**

1. Run dry protection: when water level dips too low, the wave maker stopped working one minutes then restart 5 times, each time 10 seconds.
2. Anti-clog protection: When the motor is stuck with debris, it stop running automatically if it does not work correctly after 5 times trying.
3. Current overload protection: Automatically activated to protect the pump when the current exceeds 2 times the rated power.

4. Voltage discrepancy protection: voltage greater than DC28V or small DC16V automatically stop working.

**Note: Before troubleshooting, ensure that the product power plug is in a state of non-energy.**

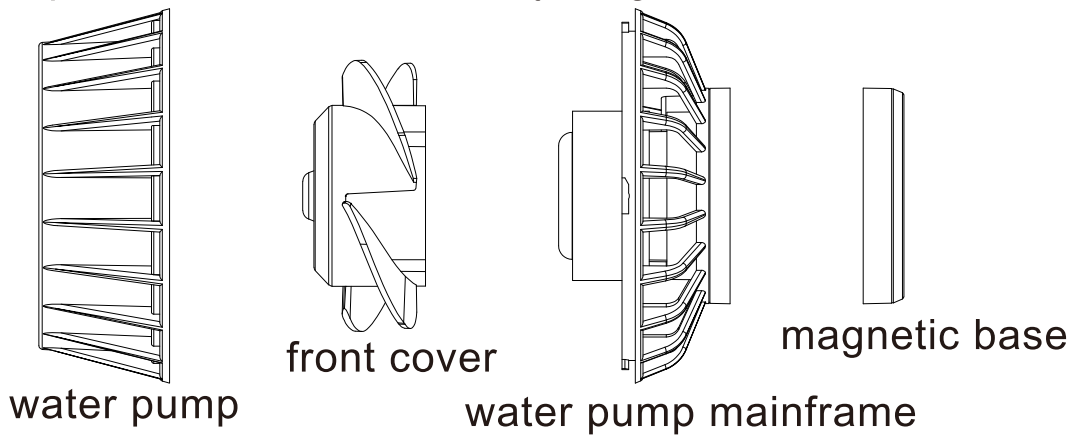
<b>Errors</b>	<b>Reasons</b>	<b>Measures</b>
Unable to start the wave maker pump	• No power nor voltage	• Check the power supply or voltage
	• Pump's main motor has been burned	• Replace a new main motor
	• Controller's main motor has been burned	• Replace a new central controller
	• Rotor with debris	• Remove the rotor to clean the debris
	• Motor protection	• Unplug the power supply and plug it back after 2 seconds
	• No response to linkage	• Exclude no other devices' Bluetooth is opening. It will return to normal after 10 seconds.
Insufficient pump output strength	• Rotor's water lobe are stuck	• Cleaning the rotor water lobe
	• Water inlet or outlet is blocked	• Cleaning the water inlet or outlet
Pump shutdown after a short run	• Water is seriously polluted	• Change or clean the water
	• Water temperature is too high	• Water temperature in the range of 32 degrees F to 94 degrees F

## **10. MAINTENANCE**

1. Before the maintenance of the wave maker pump, you must first ensure that the power plug of all equipment in the water is in a state of power failure.
2. The cleaning method: First, disassemble the wireline connecting the product and the controller. Then scatter the front cover of the product and take out the rotor assembly. Put the pump head host and related parts in clean water and clean slowly with a soft brush until there is no dirt. After cleaning, install the product again according to the corresponding installation instructions.
3. During the maintenance cleaning, do not immerse the connection plug of the product in water.



Water pump mainframe disassembly diagram :



## 11. PACKING LIST

- 1x Controller
- 1x Power Adapter
- 1x Protective Mesh
- 1x User manuals
- 1x Pump body

## 12. PRODUCT SPECIFICATIONS

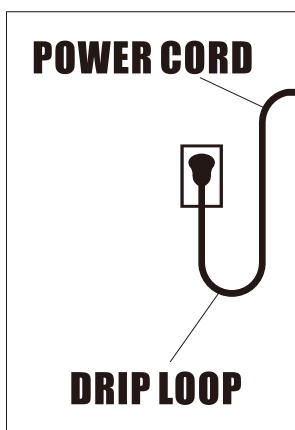
Model	Voltage	Wattage	Max volume of flow(GPH)	Applicable Tank(Gallon)
HG042	DC24V	18W	3400	75~200

## 13. WARNING

To avoid possible electric shock, do not immerse the switch in the water. If the switch falls into the water or becomes wet, do not touch it until you have unplugged it. Basic safety precautions that should be observed are as follows:

1. Read and follow this user manual strictly.
2. DANGER-To avoid possible electric shock, special care should be taken since water is employed in the use of aquarium equipment. For each of the following situations, do not attempt to repair yourself. Instead, return the pump to an authorized service facility for maintenance or discard it.
  - A. If the pump show any sign of abnormal water leakage or RCD (or GFCI- Ground Fault Current Interrupter), unplug the power and remove the pump from water.
  - B. Carefully examine the pump after installation. It should not be plugged in if there is water on parts that are not intended to be wet.

- C. Do not operate the pump if it has a damaged cord or plug, is malfunctioning, dropped or damaged in any manner. The power cord of this pump cannot be replaced. If the cord is damaged, the pump should be discarded.
- D. To avoid the possibility of the pump plug getting wet, position the aquarium and its stand to one side of a wall mounted outlet to prevent water from dripping onto the outlet or plug. A “drip loop”, shown in the figure below, should be arranged by the user for each cord, which connects the pump to the outlet. If an extension cord is used, the “drip loop” is the part of the cord below the level of the outlet or the connector that prevents water from traveling along the cord and coming in contact with the outlet. If the plug or outlet does get wet, DO NOT unplug the cord. Disconnect the fuse to the circuit breaker that supplies power to the pump. Then unplug and examine for the presence of water in the outlet. If you are not sure, consult a certified electrician.



3. Close supervision is necessary when the pump is used near children.
4. To avoid injury, do not contact moving or hot parts.
5. Always unplug the pump from the outlet when not in use, before putting on or taking off parts, maintenance or placing hands in the water. Never yank the cord to pull the plug from the outlet. Grasp the plug and pull to disconnect.
6. Do not use the pump for other than intended use. The use of attachments not recommended or sold by the appliance manufacturer may cause an unsafe condition and will void the warranty.



## **14. DISPOSAL**

Do not dispose of this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary. This product has to be disposed of at an authorized place for the recycling of electrical and electronic appliances rather than being disposed of together with the domestic waste. Collecting and recycling waste is a way of saving natural resources. So, please consult with your local seller to make sure the product is disposed of in an environmentally friendly way.

## **15. CONTACT INFORMATION**

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Website: [www.hygger-online.com](http://www.hygger-online.com)