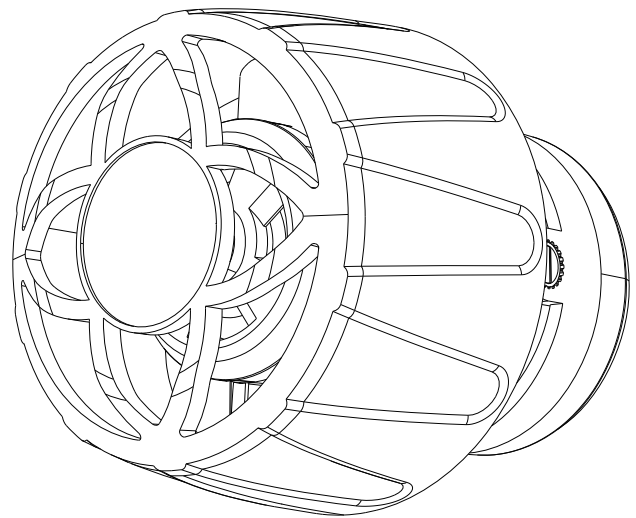
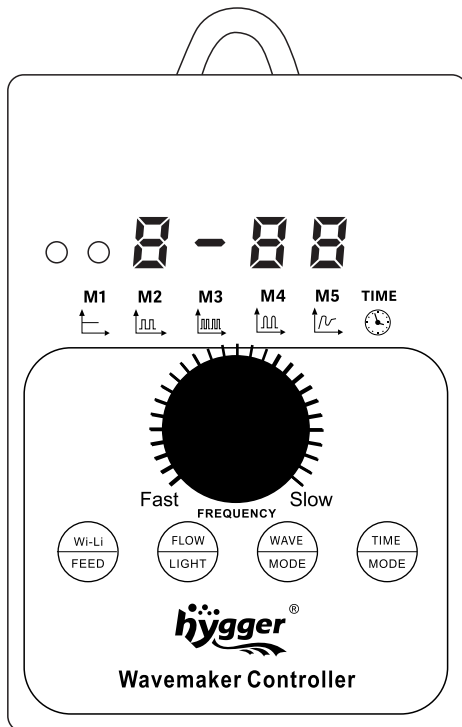




# HG112 USER MANUAL

## hygger aquarium DC wave maker pump

hygger DC wave pump is suitable for 55-150 gallon aquariums. It features an intelligent digital display controller in which you can custom wave modes, flow rate and wave frequencies. Compact in size, powerful impeller.

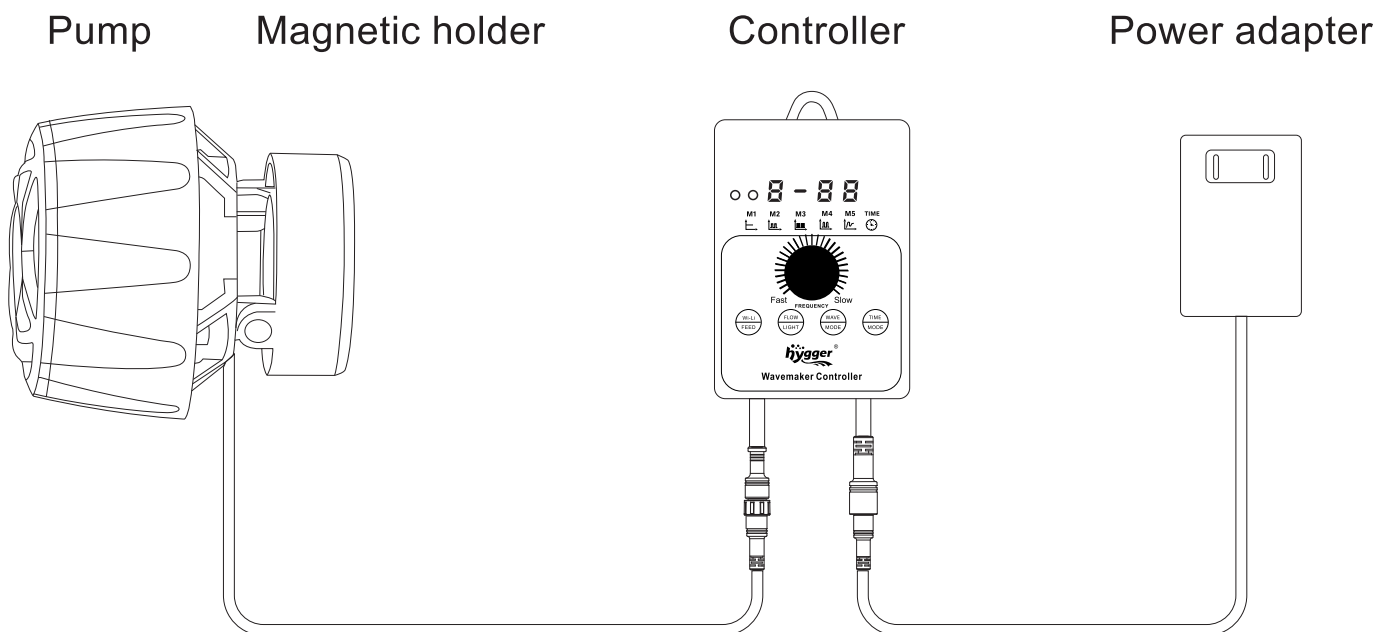


**Please read this manual carefully before using the product and keep it for future reference, follow the instructions to ensure proper operation of the pump**

# 1. PRODUCT FEATURES

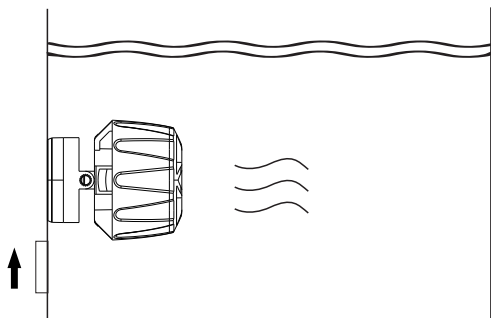
- 24-volt DC power adapter is safe and energy efficient with low power consumption.
- Adjustable wave modes, flow rate, and wave frequencies.
- The super-quiet wave pump is controlled using sine wave technology and connects wirelessly to the controller. The controller can control several pumps synchronously.
- Strong magnetic holder is easy to install and move around.
- This pump is suitable for freshwater, saltwater, and reef aquariums.
- The pump is suitable for glass thicknesses up to 15 mm.

# 2. PRODUCT DIAGRAM



# 3. INSTALLATION INSTRUCTIONS

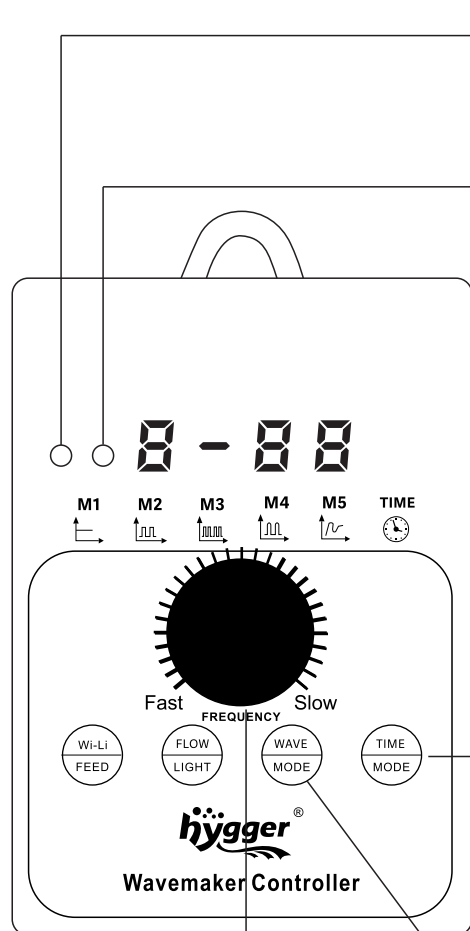
- Detach the magnetic holder from the pump body.
- Place the pump at least 3 inches underwater and secure it with the magnetic holder from the outside glass of the aquarium.
- Connect the wave pump to the controller and the controller to the adapter. Plug in and go (Fig. 1)



## CAUTION:

- Be careful not to pinch your fingers; the magnet is very strong.

## 4. INSTRUCTIONS FOR USING KEY FUNCTIONS



**Wireless Connection Display:** Long press "Wi-li/FEED", the blue light is always on for "Master" mode, blue light is flashing for "Slave" mode

**Light Sensor Indicator:** Long press "FLOW/ LIGHT" yellow light on indicates the night mode is switched on, yellow light off indicates the night mode is switched off.

### Mode/Time Light Indicator:

1. Briefly press "TIME/MODE" to see factory setting time.
2. Press the button twice to set the local time, double click to confirm the setting.
3. Press and hold "TIME/MODE" to set wave mode, flow rate and frequency within the last time range, continue to press and hold the button to confirm the setting and run the setting when "TIME" light on.

### (Factory settings are as followed)

Time range	Mode	Flow rate	Digit display
1.06:00-10:00	M1	FLOW: 15	1-15
2.10:01-16:00	M1	FLOW: 10	2-10
3.16:01-20:00	M1	FLOW: 03	3-03
4.20:01-05:59	M1	FLOW: 01	4-01

To exit TIME/MODE mode, press and hold the Button.

Frequency Setting

**WAVE/MODE:** Briefly press "WAVE/MODE" to choose wave mode from M1 to M5.


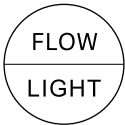
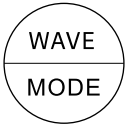
M1: Constant Wave Mode

M2: Classic Wave Mode

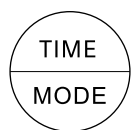
M3: Wi-Li Classic Wave Cross-flow Mode

M4: Sine Wave Mode

M5: Random Wave Mode

Button	Operating Instructions
	<p>Briefly press the "Wi-Li/FEED" button, the LED display will show "FE-10". The pump automatically stops operating and activates the ten-minute feeding mode. After the 10 minutes have elapsed, the pump returns to the previous mode</p> <p>In addition to operating individually, the wave pump can be wirelessly connected to "Master" or "Slave" other pumps. Press and hold the "Wi-Li/FEED" button. The blue indicator light illuminates and the pump activates Master mode. The controller can now address several wave pumps. If you continue to hold down the button, the blue indicator light flashes and the pump activates Slave mode. Continue to press and hold the button. The light goes out and the pump exits Master/Slave mode</p> <p><b>IMPORTANT:</b></p> <p>If the pump is in Slave mode and the blue indicator light is flashing, the controller can be controlled by another controller in Master mode. In this case, you cannot make any settings on this controller. If you have two or more controllers, you can set one of them to Slave mode and the other to Master mode. The control device in Master mode controls all devices in Slave mode and synchronizes the wave pumps. If you only have one control device, Master mode is optional</p>
	<p>Press the "FLOW/LIGHT" button to set the flow rate from 01 to 20. Press and hold the button to switch night mode on or off and the yellow indicator light lights up</p> <p><b>IMPORTANT:</b></p> <ol style="list-style-type: none"> <li>1. When the pump placed in a dark environment, the built-in light sensor detects night light and automatically switches to night mode. It works at a constant flow rate, reducing the flow to 1 to save energy and allow fish and corals to rest. The LED display shows "F-01" and the light at M1 lights up</li> <li>2. Night mode is deactivated if the pump is in feeding or time mode</li> </ol>
	<p>Press the "WAVE/MODE" button to select the wave mode. You can choose from 5 modes from M1~M5.</p> <p>M1: Constant Wave Mode  M2: Classic Wave Mode  M3: Wi-Li Classic Wave Cross-flow Mode  M4: Sine Wave Mode  M5: Random Wave Mode</p>





Press the "TIME/MODE" button to see the factory setting time

There are 4 preset time ranges. Press the "TIME/MODE" button twice to set wave mode, flow rate and frequency for each time range

### Local Time Setting

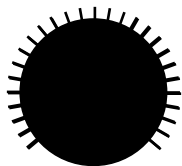
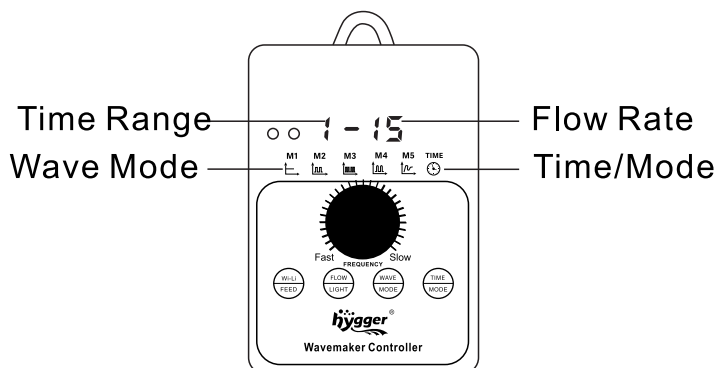
Press the "TIME/MODE" button twice, the digit flashes. You can now continue to press the button to set the hours and minutes. Press the button twice to confirm the settings and exit the menu

### 4 Time Ranges Setting

Press and hold the button to access the mode settings. The sixth indicator light flashes. You can now select from 1-4 preset time ranges for which you can set the flow rate, wave mode and frequency individually. Press the button twice to confirm the settings. Two indicator lights now light up (WAVE MODE and TIME MODE). Press and hold the button to exit the menu

### Eg: 24/7 Mode Factory settings

Time range	Mode	Flow rate	Digit display
1.06:00-10:00	M1	FLOW: 15	1-15
2.10:01-16:00	M1	FLOW: 10	2-10
3.16:01-20:00	M1	FLOW: 03	3-03
4.20:01-05:59	M1	FLOW: 01	4-01



Turn the frequency selector to set the frequency

### \*\* Attention \*\*

- Before starting up for the first time, make sure that your fish and invertebrates in the aquarium are larger than the grid size of the cover so that no animals are drawn into the pump.
- The controller is not waterproof. Please avoid contact with water to prevent electric shock and damage or injury.
- The pump should never run dry. Ensure that the appliance is always fully submerged when it is running, the water should be at least 1 inch higher than the top edge of the pump to prevent damage.

## 5. HOW TO PROGRAM

Two modes are available: a single mode and a 24/7 mode. In the factory setting, the wave pump runs in single mode M1 with a flow rate of 10 and night mode switched on.

### How to set Single Mode?

Single mode means one selected wave mode + one selected flow rate + one selected frequency in 24 hours.

1. Press the WAVE/MODE button. You can see the green indicator on M1-M5. For example, M3.
2. Press the WAVE/MODE button again to select the desired wave mode.
3. Press the FLOW/LIGHT button. You can see the screen display change from F-10 to 11.
4. Press the FLOW/LIGHT button again to select the desired flow rate.
5. Turn the dial to set the desired frequency. Done.

### How to set 24/7 Mode?

1. Turn off the night mode. Press and hold the FLOW/LIGHT button, the yellow light turns off to indicate that the night mode is off.
2. Calibrate the local time. Press the TIME/MODE button to see the hours and minutes.
3. Press the TIME/MODE button twice and the hour digit flashes.
4. Press the TIME/MODE button to set the hour time and keep pressing the TIME/MODE button until the desired hour is displayed.
5. Press the TIME/MODE button twice to confirm the setting.
6. Press the TIME/MODE button to set the minutes and keep pressing the TIME/MODE button until the desired minute is displayed.
7. The 24 hours are divided into 4 time ranges. You need to set the wave mode, flow rate, and frequency for each time range. Long press the "TIME/MODE" button, and the screen displays 1-10, indicating that you can set the wave mode, flow rate, and frequency for the time range. The time green indicator flashes.
8. Press the WAVE/MODE button to select wave mode from M1-M5.
9. Press the FLOW/LIGHT button to select the flow rate from 01-20.
10. Turn the dial to select the frequency.
11. Press the TIME/MODE button to set the time range 2. Repeat the previous steps to set the desired wave mode, flow rate, and frequency for each time range.
12. Press and hold TIME/MODE to confirm the setting, and the TIME/MODE indicator is always on.
13. Finally, press and hold the TIME/MODE button to exit the 24/7 Mode, and the indicator goes out. The single mode starts to work.

## How to “Master” or “Slave” other wave pumps?

Wireless connection: In addition to operating individually, the wave pump can be connected wirelessly to other pumps to “Master” or “Slave” other pumps.

1. Prepare at least two wave pumps with two controllers.
2. Set one of the controllers to "Master mode". Press and hold Wi-Li/FEED to turn on “Master mode”. The blue indicator light comes on.
3. Set the other controller to "Slave mode". Long press the Wi-Li/FEED button to turn on “Master mode” and long press the Wi-Li/FEED button again to turn on “Slave mode”. The blue indicator light blinks.
4. All of your other settings can be programmed by the Master mode controller. No need to make any settings on the Slave mode controller.

## 6. WARNING

The mains voltage and current frequency for the pump are specified. Your power supply must meet these requirements. Please do not use the wave pump with mains voltages and current frequencies other than those specified.

1. Never allow the pump to run dry for longer than 5 minutes. During operation, the device should always be completely covered by water to ensure a certain degree of cooling. The controller must not come into contact with water; you risk irreparable damage to the pump.
2. The device is suitable for use in fresh and salt water. Do not use it in flammable, acidic or corrosive liquids.
3. The appliance operates in clean water in a temperature range between 4 °C (39°F) and 35°C (95°F). Operation outside this temperature range may result in damage.
4. Never lift the device directly by the cable to avoid damaging it.
5. If the cable is damaged, take the appliance out of operation for safety reasons.
6. The controller must not fall into water or be operated in environments with high humidity. It is not waterproof. Please ensure that the controller is not placed in a dark location; so as not to cause the night function to fail.
7. The pump housing is held to the aquarium glass by a very strong magnet. Make sure that the two magnetic sides of the holder are never brought together without protection in between; they are very difficult to separate again.
8. Store the pump in its packaging when it is not in use.

## 7. TROUBLE SHOOTING

Please note: Always disconnect the appliance from the power supply before troubleshooting.

Error	Cause	Solutions
The pump does not work	Damaged power supply	Replace the power supply
	Damaged pump	Replace the pump
	The controller is broken	Replace the controller
	The impeller is blocked	Remove the impeller and clean it
	The motor protection function has triggered	Disconnect the device from the power supply for two seconds and then plug it back in
	Connection with other devices does not work	Turn off other Bluetooth devices. Restart the pump after 10 seconds
Insufficient water current	The impeller is clogged	Clean the impeller
	The water inlet or outlet is blocked	Clean the water inlet or outlet
The pump switches off after a short time	Dirty water	Carry out a water change
	The water temperature is too high	Please note that the maximum temperature is 35 °C
E1	Overvoltage	Replace the controller
E2	Undervoltage	Replace the controller
E3	Overcurrent	Replace the controller
E4	Dry running	Submerge the pump completely in the water
E5	Motor blockage	Reassemble the impeller

## 8. MAINTENANCE

1. Before carrying out maintenance work on appliances operating under water, always disconnect them from the power supply.

2. Cleaning: First disconnect the plug connection from the controller and pump. Remove the cover on the front of the pump and remove the impeller and axle. Then carefully clean all pump parts with a soft brush in clear water. After cleaning, reassemble the device as explained in the relevant operating instructions.

3. Make sure that the plug connections never get wet during cleaning.

## 9. PACKING LIST

- 1x Controller
- 1x Power adapter
- 1x Protective mesh
- 1x User manual
- 1x Pump

## 10. PRODUCT SPECIFICATIONS

Model	Voltage	Power	Max flow rate	Applicable aquarium size
HG112-8W	DC24V	8W	1500GPH/6000L	55-100GAL (200~380L)
HG112-14W	DC24V	14W	2300GPH/9000L	100-150GAL (380~560L)

## 11. 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 shows 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.

**POWER CORD**



**DRIP LOOP**

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.

## **12. ONE YEAR LIMITED WARRANTY**

This product **MUST** be purchased from an authorized hygger reseller. Visit our website for a list of authorized resellers. hygger warrants this product against defects in materials and workmanship for ONE(1) YEAR from the date of the original retail purchase and is none-transferable.

Warranty on all products, including aquariums. But it is limited to the replacement of the products and does not cover fish loss, personal injury, property loss or direct, incidental or consequential damage caused by using this product.

**Note:** hygger One-year Limited Warranty does not cover damage caused by the followings: improper installation, saltwater corrosion, electrical surges or modifications. Additionally, products that have been refunded are also not covered under the warranty.

If you discover a defect, please contact hygger, who will, at it's option, repair or replace the product at no charge, provided that you return it during the warranty period. A copy of the bill of sale is required as a proof of the original purchase date in the event of the product needing repairs within the warranty period. hygger does not warrant any products that aren't hygger's.

This warranty does not apply if the product has been damaged by accident, abuse, misuse or misapplication, or modified without the written permission of hygger.

## **13. 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

## **14. CONTACT INFORMATION**

Distributed by:Hygger Aquarium, Inc.  
13941 Magnolia Ave, Chino, CA 91710

Contact us at [www.hygger-online.com](http://www.hygger-online.com)  
Email:[mago@hygger-online.com](mailto:mago@hygger-online.com)

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