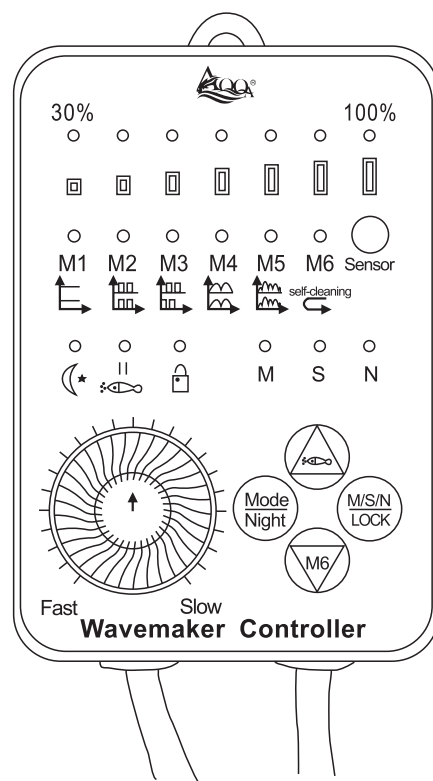
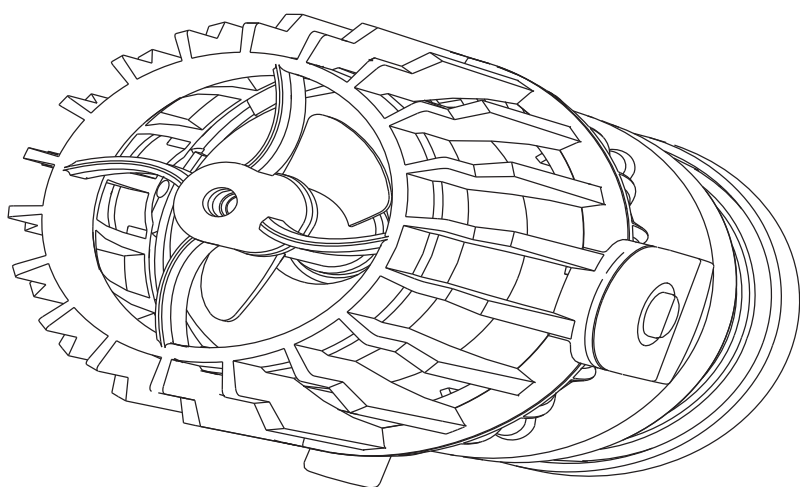




AQQA Aquarium Adjustable Wave Maker Circulation Pump



AQQA inverter wave pump simulates a marine ecological environment almost perfectly. The high-tech product was specially developed for marine aquariums with fish and invertebrates. It can simulate a swell and imitate the currents of nature so that aquatic organisms can mimic their natural environment in the aquarium.

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

1. INSTRUCTIONS FOR USE

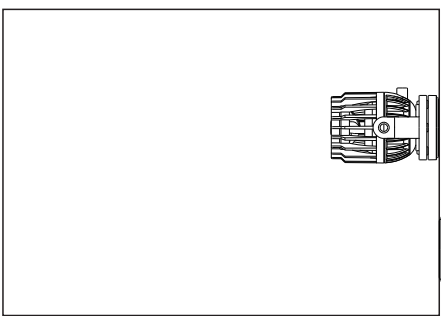
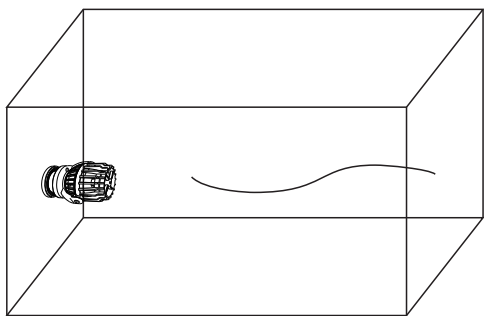
- This pump is only suitable for indoor use; the controller and the power connection are not waterproof and must not get wet.
- This pump is suitable for aquariums with a glass thickness of up to 15mm.
- When attaching the pump to the aquarium glass, ensure that the two parts of the magnetic holder are not placed directly on top of each other. Instead, slowly push the parts together until the magnet holds.
- If you use the pump, lay the cable as a drip loop so that water escaping from the aquarium cannot get into the socket and cause a short circuit.
- Do not use the pump in flammable liquids.
- Do not lift the pump by the cable to prevent damage to the cable connection.
- Non-professionals or children should not use the pump.
- Do not open the control or power supply units to avoid damage or attempt to repair them.
- To ensure the performance of the pump, never allow it run dry.

2. PRODUCT FEATURES

Suitable for freshwater and saltwater aquariums
Reverse automatic cleaning
Wireless control
Various waveforms adjustable
DC24V safety output voltage
Broad input voltage

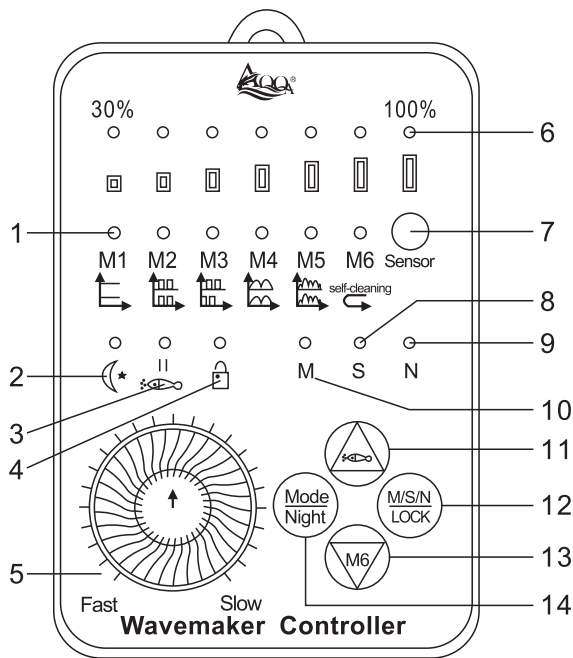
3. PRODUCT SPECIFICATIONS

Model	Adapter	Power (Max)	Flow rate (Max)	Recommended tank size
AQ099-10W	Input voltage: AC100-240V 50/60HZ Output voltage: DC 24V 1.0A	10W	1056GPH/4000L	15-70Gal (56~265L)
AQ099-23W	Input voltage: AC100-240V 50/60HZ Output voltage: DC 24V 1.5A	23W	2113GPH/8000L	70-180Gal (265~681L)




1. This pump is suitable for aquarium with glass up to 15mm thick.
2. The package includes a pump, a controller, an adapter, an adapter cable, a double-sided adhesive, a hook tape, and a user manual.
3. Remove the rear magnetic suction cups from the clip on the housing of the wave pump and attach the pump to the aquarium's glass using the suction cups. As shown in Figure 2, be careful not to pinch your fingers due to the powerful magnetic force.
4. Peel off the protective paper on one side of the double-sided adhesive tape and stick the adhesive tape firmly to the center of the back of the controller. Then, remove the protective paper from the other side and stick the controller outside the aquarium, as shown in Figure 1. You can skip this step if you do not want to attach the controller directly to the aquarium.
5. Connect the controller to the pump and the power cable to the adapter. Then, connect the controller to the adapter. Then, connect the power cable to the socket.

4. OPERATION AND CONTROL PANEL FUNCTION






1. Display of wave mode M1 to M5, M6: Backwash mode for cleaning
2. Indicator light for the Light sensor
3. Indicator light for a ten-minute feed pause
4. Indicator light for the button lock
5. Frequency setting
6. Display of flow rate
7. Light sensor
8. Indicator light for Slave control
9. Indicator light for Individual control
10. Indicator light for Master control
11. Press briefly to increase the flow rate, press and hold for approx. 3 seconds to start the ten-minute feed pause
12. Press briefly to select the control mode, and press and hold for approx. 3 seconds to activate the button lock
13. Press briefly to lower the flow rate, press and hold for approx. 3 seconds to activate the backwash (M6)
14. Press briefly to change the wave mode, and press and hold for approx. 3 seconds to activate the light sensor

1. Five operating modes


This pump has five operating modes and a backwash mode for cleaning. Press briefly  to select the desired mode. The following operating modes are available:

M1: Constant flow

Change the flow rate by using  and , and select the appropriate setting from 01-07. Turn the frequency setting knob  to increase or decrease the frequency.




M2: Classic waves

In this mode, you set the wave type using the rotary knob. Because the actual amount of water in the aquarium does not correspond to the calculated volume of the tank, set the wavelength using this knob. The wave only reaches its maximum when its length corresponds precisely to the size of the tank; turn the knob clockwise to lengthen the wave and counterclockwise to shorten it.




Adjustment tips: When adjusting the length of the wave, it is best to turn the knob in small steps and after a long period of observation. When setting the first wave, the optimum waveform is first created; you can check the frequency with this switch .

M3: Classical returning waves




This mode is suitable if you want to operate two wave pumps simultaneously in the aquarium. When using two wave pumps simultaneously: The master pump and the slave pump work in opposite directions; if the master pump works, the slave pump stops, and vice versa.

Turn the frequency setting knob  to increase or decrease the frequency, and press  and  to increase or decrease the flow rate.

M4: Sine waves

Set the wave frequency with the wave frequency setting knob , press  and  to select the desired wave mode.



M5: Random mode

Set the wave frequency with the wave frequency setting knob , press  and  to select the desired wave mode.

2. Backwash cleaning mode


Press and hold M6 to activate backwash cleaning mode and remove deposits from the pump housing.



3. Feeding mode


Press and hold the  button until the indicator light is on, and the pump will stop automatically for 10 minutes so that you can feed in peace. If you want to cancel the pause beforehand, press and hold the  button again until the indicator light goes out.

4. Wireless connection



For a wireless connection, two identical pumps are operated on the aquarium at the same time. The wireless connection coordinates and synchronizes both wave pumps with one controller.



Master Control: Briefly press the button  , and the “M” indicator light lights up. The controller is now in Master mode, the controller with this display is the master unit; All settings for several pumps running synchronously are made here.

Slave Control: Briefly press the button  , and the “S” indicator light lights up. The controller is in Slave mode. This control device is dependent on the master device; you cannot change any parameters here. In this mode, the buttons have no function, and all settings must be made on the master device. (To exit Slave mode, briefly press the button  and select “M” or “N”)

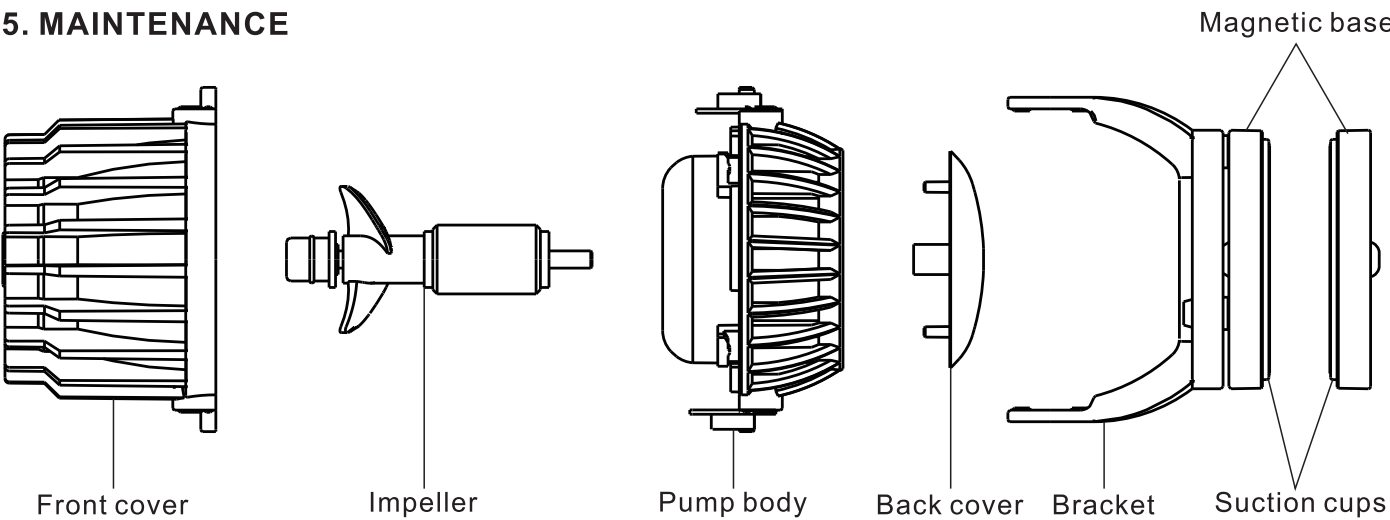
Individual Control: Briefly press the button  , and the “N” indicator light lights up. The controller is in independent mode and can be set individually.

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.

5. Key lock: Press and hold the button  until the corresponding indicator light illuminates. All settings are now saved, and no parameters can be accidentally changed by pressing the button. To cancel the button lock, press and hold the button  until the indicator light is off.

6. Light sensor: Press and hold the button  to switch the light sensor on and off. If the indicator light lights up, the light sensor is active. In bright light during the day, the pump operates with the set parameters, which can also be reset. In the dark at night, the pump switches to night mode and jumps to program M1. You cannot change the settings during night mode; the key lock is active. The pump only consumes 30% of the usual power requirement. When the light becomes brighter, the pump returns to the preset wave mode and operates according to your set parameters. To exit light sensor mode, press and hold the button  until the indicator light goes out.

5. MAINTENANCE



- 1. Clean the wave pump regularly to ensure consistent performance.
- 2. If the controller gets wet, dry the housing with a dry cloth to prevent water from entering.
- 3. Clean debris from the pump housing by rotating the front cover to remove it. Turn it clockwise to close it, turn it counterclockwise to open it; rub the rotor clean with a soft cloth and rinse the pump housing with clean water to remove deposits.

6. 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.

7. PACKING LIST

- | | |
|-------------------------------|----------------|
| 1x Adapter | 1x Controller |
| 1x Double-sided adhesive tape | 1x Pump |
| 1x Hook tape | 1x User manual |

8. ONE YEAR LIMITED WARRANTY

This product MUST be purchased from an authorized AQQA reseller. Visit our website for a list of authorized resellers. AQQA warrants this product against defects in materials and workmanship for ONE (1) YEAR from the date of 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 arising from the use of this product.

Note: AQQA 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 AQQA, who will, at its option repair or replace the product at no charge to you, provided that you return it during the warranty period. A copy of the bill of sale is required as a proof of original purchase date in the event of the product needing repairs within the warranty period. AQQA does not warrant any products that are not belong to AQQA.

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

9. CONTACT INFORMATION

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