



Reverse Nano Pump User's Manual



I. Introduction

CoralBox wave makers are specifically engineered as the perfect equipment to simulate the natural sea environments.

RN-1 pump is a very compact propeller pump using innovation and high technology solutions to provide natural environments for different sea inhabitants in aquariums, fish tanks or in ponds.

The excellent design, including the compact housing and the magnet holder, permits 3D flow directions and simple mounting at every point of aquarium walls.

Before assembling and operating correctly, please read the user manual carefully.

II. Function Overview

1. Unique control system allows to operate with different types of wave and multiple functions, which can generate different wave patterns according to different needs.
2. Wireless controllers allow to synchronize operation among wave makers. One main controller can remotely control several sub-controllers.
3. Low voltage DC electronic pump with variable frequency provides a safe environment for users.
4. Easy operation to achieve the multiple sea moving patterns.
5. Flow direction can be adjusted by different operative modes, as needed.
6. Large range of voltage input (AC100~240V 50/60Hz) allows to operate in various power systems and prevent the impact on waves shapes.

III. Package Content

Coral Box wave maker pump	Wireless controller with connection cable
Power unit with power cable	Bi-adhesive
User manual	

IV. Assembly and installation Notes

Suitable for most sizes of fish tanks and ponds, up to 15mm glass wall thickness.

Caution! Danger of injury! Pay attention to your fingers when locating the magnet due to the

strong attractive power.

1. Separate the external magnet from the pump package. Locate the pump in the selected position inside the tank on the internal side of the glass wall. Locate the external magnet on the external side of the same glass wall and slide it up to the pump position. Ensure that the aquarium glass is free from algae inside and is dry and clean outside.

2. If the controller has to be stuck on the tank, peel-off the protection paper from one side of the double-sided tape and paste it on the back side of the controller. Peel-off the second protection paper and locate the controller in the selected position.

3. Connect the pump to the controller by means of the 3-pins connector. Insert the adapter plug to the controller and connect the power unit to the power supply source.

4. Start controller programming.

Name	RN1	Operating Tension	24V
Flow Rate	1500~10000L (396~2642gal/h)	Cable Length	1860mm (73inch)
Energy Consumption	25W	Dimension	78*72* 52mm (3.1*2.8*2 inch)
Voltage / Frequency	110/240V 20/60Hz	Outlet Nozzle diameter	70mm (2.8inch)

V. Operation and Function

1. Buttons and Functions of LED Display Controller



Mode/Night: Press the button to select different modes: F1, F2, F3, F4, F5, F6, F7 and enter to the Night mode by long hold-down the button.



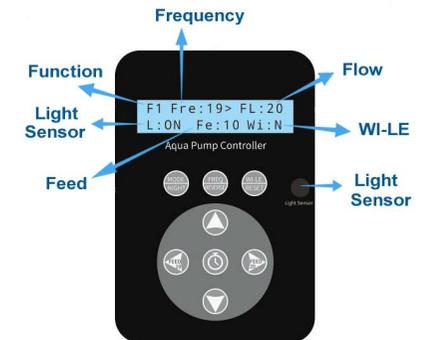
Freq/reverse: Press the button to adjust the Frequency and long hold the button to enter in the Reverse mode.



WI-LE/Reset: Press the button to select Master control "M", "S" for Slave, "N" for Standalone unit. Hold down the Reset key for 3 sec. to reset the controller unit.



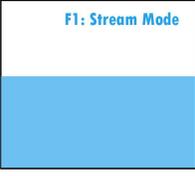
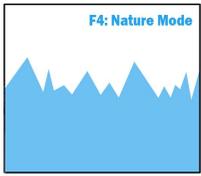
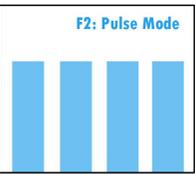
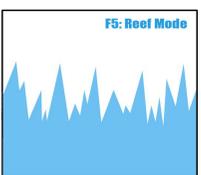
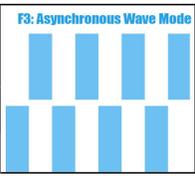
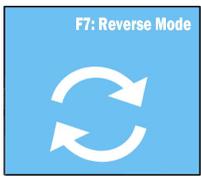
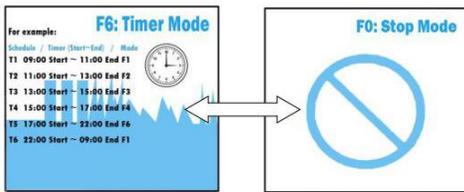
Arrow keys: 10Mins Feed / 20Mins Feed or move position.



***Attention:** If the pump operates in Night Mode, any other mode/feeding is disabled until exit from the Night Mode

Be careful: Make sure to switch off the main controller before plug it with DC power supply or plug with powerhead block.

2.Introduction of each mode

	F1:Stream Mode One or more pumps can operate at the same time, in constant flow.		F4:Nature Mode The power level changes between 30%~100% making a more natural flow pattern.
	F2:Pulse Mode One or more pumps can operate at the same time,in pulse flow. Pulse the wave by time / flow frequency. Nature Mode(LPS) Reef Mode(SPS)		F5:Reef Mode Power of flow is changing in a random mode in volume and time. This is the best mode for corals.
	F3:Asynchronous Wave Mode Shift flow in cycles, Pump A run, Pump B stop;Pump B run, Pump A stop Need have 2 Pump with WIFI master and slave to run.		F7: Reverse Mode Clockwise pump.The pump uses the opposite direction of the water flow to improve cleaning of your tank.
		F6:Timer Mode Six different operative modes can be set in this mode. For example, the first set of 9 a.m to 10 a.m stream mode, the second set of 10 a.m to 1 p.m pulse mode. F0: Stop Mode It only works in the Timer Mode(F6) . This mode stops the Pump running in the programmed time slot.	

F1,F2,F3,F4,F5,F7 can press “Frequency/Reverse” button to adjust the Frequency,Press “Up/Down”arrows to adjust the Flow.

3.How to Set the Timer?

First you need to press  “MODE/NIGHT” button to select F6 Timer mode.

Enter in the programming mode by pressing  “Timer switch” button.

Move the cursor in the position to be set by using  Left/Right arrows.

Adjust Current Time/Schedule/Timer/mode by using  Up/Down arrows.



4.Sequence Modes Setting:

Press “time switch” button to enter in the programming mode. Using left/right arrows, move the cursor on the digit of the Schedule (T), and change it from 1 to 6 using up/down arrows. Example if first time slot is to be programmed, digit shown in the display are: T1 Using left/right arrows, move the cursor on the Start Time digits. Move up/down arrows up to achieve the desired figure. Example if start time is set to 09:00 than digit in the display are: 09S

Using left/right arrows, move the cursor on the End Time digits. Move up/down arrows up to achieve the desired figure. Example if end time is set to 11:00 than digit in the display are: 11E

Using left/right arrows, move the cursor on the Function digit. Move up/down arrows up to achieve the desired function mode from 0 to 5. Example if mode is set to 1, then digit shown in the display are: F1

Here is possible to set the Stop Mode (F0).

As a reference here below an example of daily program in multifunctional mode.

Display	Schedule	Timer (Start ~ End)	Function
Time: 09:01:00 T1 T: 09S - 11E F1	T1	09:00 Start ~ 11:00 End	F1
Time: 11:01:00 T2 T: 11S - 13E F2	T2	11:00 Start ~ 13:00 End	F2
Time: 13:01:00 T3 T: 13S - 15E F3	T3	13:00 Start ~ 15:00 End	F3
Time: 15:01:00 T4 T: 15S - 18E F4	T4	15:00 Start ~ 18:00 End	F4
Time: 18:01:00 T5 T: 18S - 22E F5	T5	18:00 Start ~ 22:00 End	F5
Time: 22:01:00 T6 T: 22S - 09E F4	T6	22:00 Start ~ 09:00 End	F4

***Attention: To provides best motor impeller performance F7 reverse mode cannot operation to timer to avoid Long time running.**

VI.Warnings

- Do not operate the pump outside water to ensure the performance.
- Select a dry place to locate the controller to prevent water could be splashed on it.
- Pay attention during magnets assembly. It is recommended to locate the magnetic pad close to the outside wall of fish tank to prevent breaking the fish tank and then shift it in

- correspondence of the pump location.
- Never disassemble the controller and the adaptor without professional guidance.
- Never repair a damaged cable without professional guidance. In case of main cable damage, change the entire pump or power supply unit.

VII. FAQ & Maintenance

1. Why can't I change the mode?

Check if night mode is on, if it is set it to off. If Wireless is "S", the pump is controlled by the master pump, change the wireless mode to N (Standalone) to allow for local settings. Check the Timer if you change back to F6 Mode, after set the timer, you need to switch F6 to running. Make sure all the timer program T1-T6 is set, remember check it not overlap corrupt on the same time. Otherwise it will not function.

2. How Can I reset the controller?

Hold the Reset button 3 seconds, it will reset the controller programs to the factory status.

3. How many time periods can I program on each day?

Up to 6 time periods per days.

4. Why can't I use F0 mode?

F0 Mode (Stop the pump), The function only works in Timer mode.

5. Why won't my program run?

Check the timer, if you change back to F6 mode after you set the timer, you need to switch F6 to running.

6. My pump produces some noise. What can I do?

New pumps could have temporary sound issue. Normally the noise will be naturally reduced after one week of operation. You can also try to take-out the impeller and reinstall the rubber bush.

7. How I can set for the Master and Slave Pump?

Set WIFI Button to "M" for A Pump, and set B Pump controller WIFI to "S".

8. Which parts are consumables?

THE IMPELLER / THE RUBBER BUSH AND THE COVER ARE CONSUMABLE ITEM, WE RECOMMEND TO CHECK REGULARLY THEIR STATUS AND TO CHANGE THEM AFTER 1 YEAR TO PROVIDES BEST PERFORMANCES.

ITEM	CODE
Impeller	98443
Rubber Bush	98442
Cover	98441

- This product is for indoor use only. Never submerge the controller, the power supply unit or the connect or inside the water to avoid unnecessary loss.
- Regularly clean the controller to ensure good performance.

- Rub the controller surface with a dry cloth if it has been accidentally wetted to prevent water from dripping into controller.
- Sweep the waste in the pump housing and on the propeller by opening the pump housing. Rotate the basket in anti-clockwise direction to open the housing and lock it by rotating in clockwise direction.
- Use soft cloth to rub the blade and clean the dirt in the pump

VIII. WEEE - Waste Electrical and Electronic Equipment

In August of 2005, the European Union (EU) implemented the EU WEEE Directive 2002/96/EC and later the WEEE Recast Directive 2012/19/EU requiring Producers of electronic and electrical equipment (EEE) to manage and to finance the collection, reuse, recycling and to appropriately treat WEEE that the Producer places on the EU market after August 13, 2005.

The objective of this directive is to minimize the volume of electrical and electronic waste disposal and to encourage re-use and recycling at the end of life. Coral Box has met its national obligations to the EU WEEE Directive by registering in those countries to which Coral Box is an importer.

Coral Box has also elected to join WEEE Compliance Schemes in some countries to help manage customer returns at end-of-life. If you have purchased Coral Box-branded electrical or electronic products in the EU and are intending to discard these products at the end of their useful life, please do not dispose of them with your other household or municipal waste. Coral Box has labeled its branded electronic products with the WEEE Symbol (figure 1) to alert our customers that products bearing this label should not be disposed of in a landfill or with municipal or household waste in the EU.

Instead, please be aware that Coral Box is making a return and collection system available to you, free of transportation and recycling costs, for discarding these products. Can only be used by the Company if this document is publicly available.

For a copy of Coral Box's Selective Treatment of Waste Electrical and Equipment outlined under Articles 14 and 15 and Annex VII of the EU WEEE Directive 2012/19/EU, please click here [WEEE Selective Treatment List](#) and the list of hazardous materials used in our product.



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