



HONYA CO., LTD
www.reefoctopus.com



OCTO pulse +

Manual

OP-2 +

OP-4 +



Dear Customer

Thank you for choosing OCTO, a quality product manufactured by HONYA CO., LTD. In order for you to safely use our product for optimum results, please read the instruction prior to use. We would strongly suggest that you retain this Instruction for future reference.

Safety on Magnet

- **CAUTION-Extremely Strong Magnets**, please handle with care.
- Keep magnets out of reach of children.
- Do not snap both magnets together directly.
- Keep the magnets away from electronics products and magnetic storage devices such as credit cards, pacemaker etc.

Notes

- Never handle any electrical component when your hands are wet.
- Ensure that all components (power adapter, controller, wires, etc) are properly set –up to prevent accidental damage.
- For indoor use ONLY.
- For controller operation, please refer to the instructions as per this manual.
- Keep controller cool and dry, do not expose to direct sunlight or heat.
- **Pump Protection System** – if pump is detected to be running dry, it will stop operating after about a minute. To restart the pump, off the power, re-position the pump to ensure that it is submerge in the water then turn on the power.
- Should in the unlikely event that your pump stop working, please refer to the trouble shooting page in this manual.
- Please maintain your pump as per this manual.

Overview

- Introducing our new OCTO Series Direct Current (DC) Wave Pump, OCTO Pulse features Multiple Angles Adjustment, a new WiFi Controller, APP Control and couple with a 0-10V Port, 4 programmable wave patterns, high quality ceramic shaft and bearing to reduce wear and tear, and the latest variable speeds flow technology for refined control, enhanced performance, energy-efficiency and safer operations.
- Our New WiFi enable controller can now power *Two Wave Pumps simultaneously and settings between these two wave pumps easily via our bespoke OCTO APP available for both IOS or Android devices.

Features & Benefits

- 360° Range of Adjustment
- Low-profile magnetic mount
- Neodymium magnets
- WiFi enable
- App controllable
- Compact and durable
- Silent Operation
- 4 pre-programmed flow patterns
- Dual feed mode (15 or 60 mins)
- Single Controller to control and power 2 wave pumps*

Product Specification

OCTO Pulse Wave Pump										
Item #	Product	Max Flow Rate		Power	Tank Water Volume		Suggested Tank size			Max Wall Thickness
		LPH	GPH	W	L	US GAL	cm	in	mm	in
9010407009	OP-2+	6000	1585	5-10	80-300	21-80	40-100	16-40	12	1/2
9010408009	OP-4+	17000	4490	11-32	300-1800	80-475	100-180	40-71	15	5/8

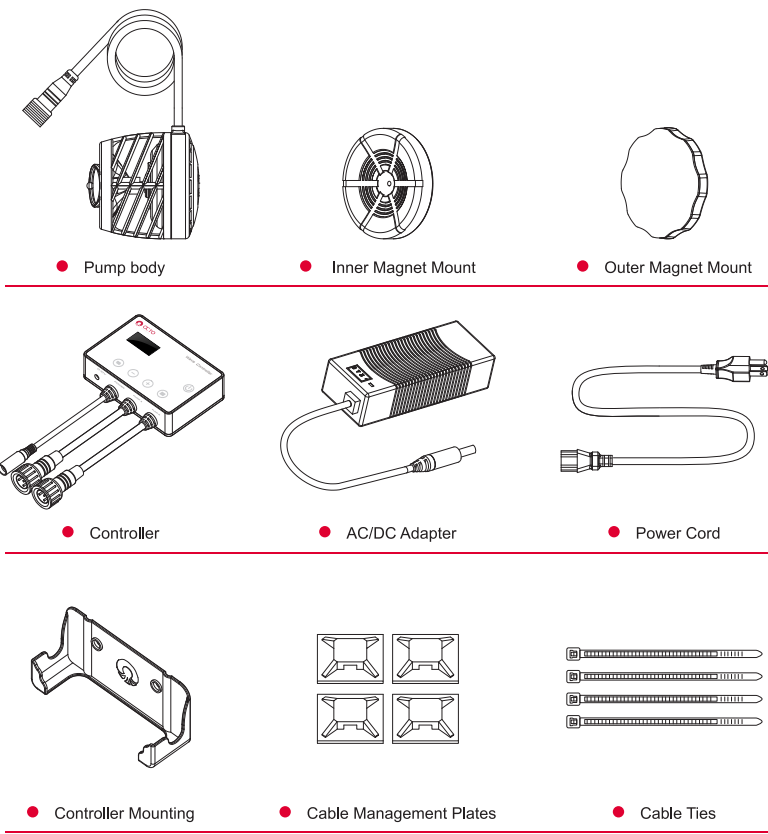
Flow Rate Charts

Step	OP-2+		
	Power W	Flow Rate LPH	Flow Rate GPH
+30%	5.0	3200	845
+40%	6.0	3800	1000
+50%	6.5	4050	1070
+60%	7.0	4450	1170
+70%	7.5	4720	1250
+80%	8.5	5100	1350
+90%	9.5	5820	1540
+100%	10.0	6000	1585

Step	OP-4+		
	Power W	Flow Rate LPH	Flow Rate GPH
+30%	11	5360	1410
+40%	14	7900	2080
+50%	17	9600	2530
+60%	20	11300	2980
+70%	22	12400	3270
+80%	25	14100	3720
+90%	28	15900	4200
+100%	32	17000	4490

Package

Please check the content in the package



Attention:

DC24V/1.0A (AC/DC Adapter) for OP2 / OP2+OP2
DC24V/2.5A (AC/DC Adapter) for OP4 / OP4+OP2
DC24V/4.0A (AC/DC Adapter) for OP4 / OP4+OP4

Installation



1



2



3



4

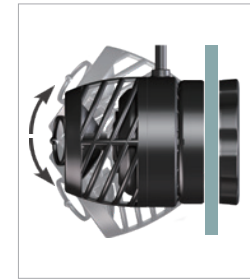


5



6

- Slide the Inner and Outer Magnet into your desired position (image 1/2). DO NOT Snap both Magnets together.
- Mount the Pump to the Inner Magnet, ensuring that the power cable is on top (image 3/4).
- Tie the cord to the Cable Management Plate using a Cable Tie. Do not tighten the Cable Tie till confirmation of Pump Position. Ensure to have some allowance for final adjustment of pump position before cutting off the excess Cable Tie.



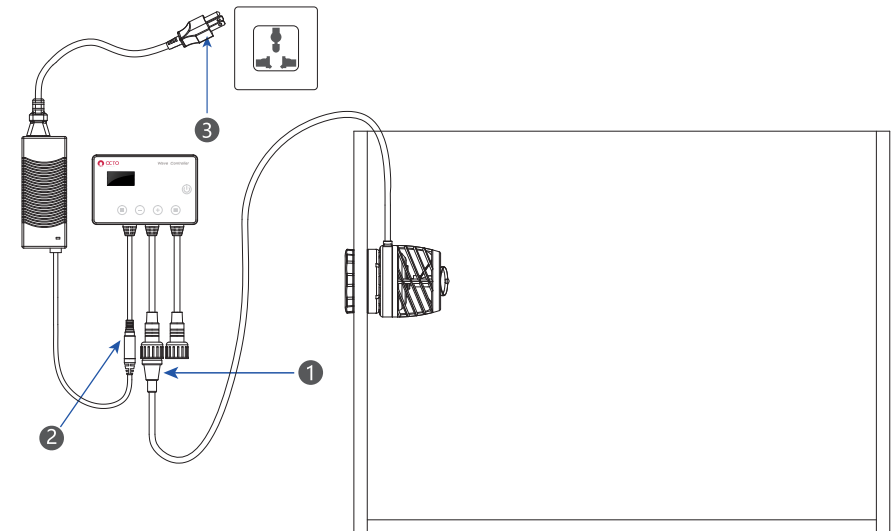
7



8

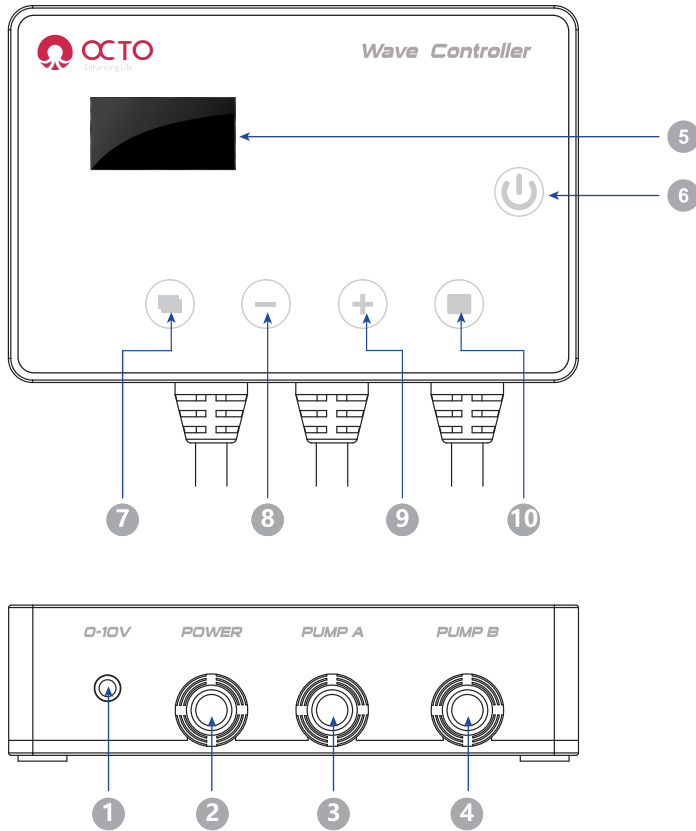
- Adjust angles according to your requirements (image 7/8).

Connections as per below diagram. OCTO Pulse system has a built-in safety mechanism. Make sure all cables are connected (1 and 2), mount the controller before turning on the power (3)



Attention: Before starting the pump, please ensure that livestock are not near the pump.

Controller Quick Start Guide



• Legend

- ① 0-10V Input (3.5mm TRS Audio port)
- ② Power supply Connection (DC24V)
DC24V/1.0A: OP2 / OP2+OP2
DC24V/2.5A: OP4 / OP4+OP2
DC24V/4.0A: OP4 / OP4+OP4
- ③ Connection for OCTO Wave Pump
- ④ Connection for OCTO Wave Pump
- ⑤ LED Display screen

• Settings

- ⑥ Power / Pause
Power: once controller is connected; it is automatically ON. Press (⏻) and HOLD for 3 seconds to power OFF.
Pause: press (⏻) once to go into Pause Mode: Press (⏪) or (⏩) to select 15 mins or 60 mins, press (■) to set the timing.
- ⑦ Settings / WiFi ON-OFF
Press (■) once to go into settings, depress again to return to previous menu
WiFi ON / OFF Switch: Press (■) and HOLD for 3 seconds, (📶) will appear on screen to indicate WiFi function is turn ON.
Attention: when WiFi function is turn ON, you can only access ON-OFF / Pause / WiFi ON-OFF / WiFi Network / Pump Selection functions / Factory Reset. All other buttons will be disable and you can only do the settings of the pump via APP only.
- ⑧ — ⑨ Depress (⏪) or (⏩) to enter settings for wave patterns / wave patterns flow rate / wave patterns timing and adjust pause duration.
- ⑩ Press (■) to switch / confirm selection.

• Network and Factory Reset

- Pump selection: simultaneously depress (■) and (⏻) and HOLD for 3 seconds.
- Network selection: when WiFi is turn ON, simultaneously depress (⏪) or (⏩) and HOLD for 3 seconds to select network. (📶) will start blinking.
- Factory Reset: Simultaneously depress (■) and (■) for 3 seconds.

• Attention:

- ① When 0-10V port is use, Controller will only let you access ON-OFF / PAUSE functions only.
- ② When WiFi function is turn ON, you can only access ON-OFF / Pause / WiFi ON-OFF / WiFi Network / Pump Selection functions / Factory Reset. All other buttons will be disable and you can only do the settings of the pump via APP only.
- ③ Display will go into sleep mode when inactive for 3 minutes. Press any button twice to revive the display.

0-10V Wiring diagram :



Screen Icon

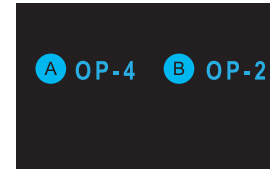
-  WiFi ON: this logo will display when WiFi function is turn on.
-  WiFi logo flashing: please select WiFi network via OCTO APP.
-  WiFi logo flashing: WiFi connection is off-line (Note: when you start connecting for the 1st time the same logo will flash as well).
- **C2** Only when WiFi function is turn on, it will display 5 time settings and current settings.
-  Please change battery.

-  Constant
-  Sync
-  Pulsing
-  Cross Flow
-  Laminar Flow

- **S1** Highest RPM
- **T1** Highest RPM timing and duration
- **S2** Lowest RPM
- **T2** Lowest RPM timing and duration

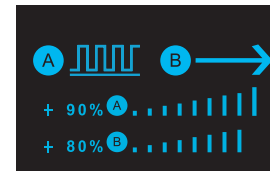
Screen Icon

Select Pump Model



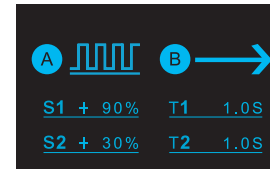
- 1 Press both () and () simultaneously for 3 seconds
- 2 Press () () to select pump A model
- 3 Select () for B Pump
- 4 Press () () to select pump B model
- 5 Press () to save and exit

Main Display



- Current wave pattern
- +90% Current RPM %
- Current RPM indicator

Setting Mode



- 1 Press () to enter settings
- 2 Press () () to set
- 3 Press () to switch
- 4 Press () to save and exit

Pause function



- 1 Press () once to enter setting
- 2 Press () () to set the desire time
- 3 Press () to confirm

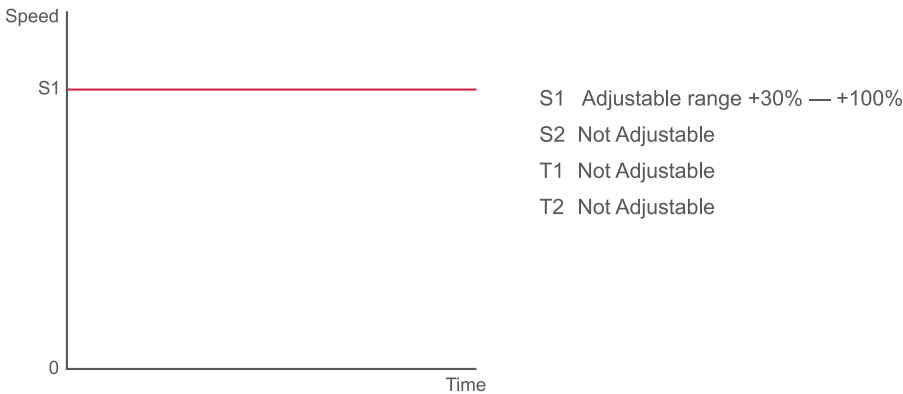
Power Off



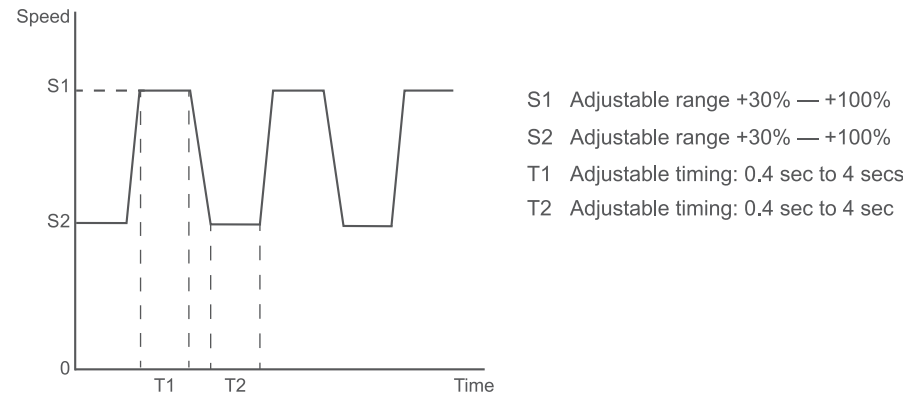
- 1 Press () and HOLD 3 seconds to power OFF
- 2 Press () and HOLD 3 secs to power up

Wave Mode Flow Patterns

• → Constant Flow Mode



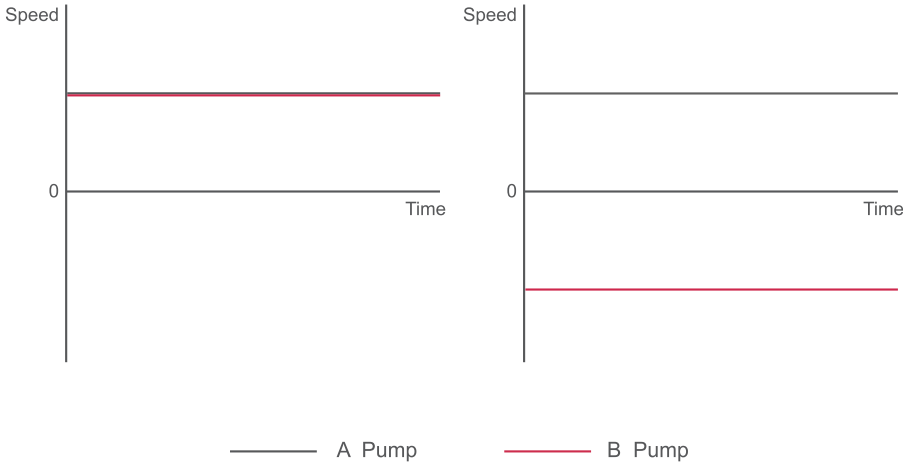
• Pulsing Mode



• A / B Pump synchronizing mode

⇒ Sync

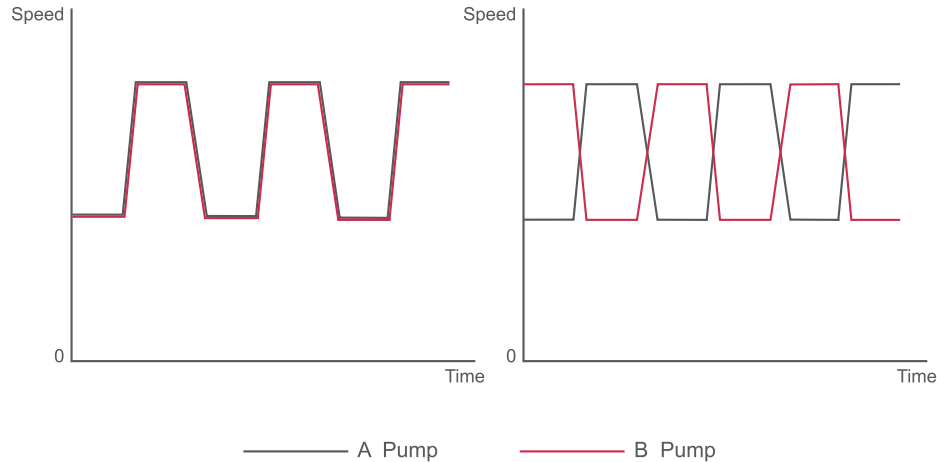
⇌ Cross Flow



• A / B Pump synchronizing mode

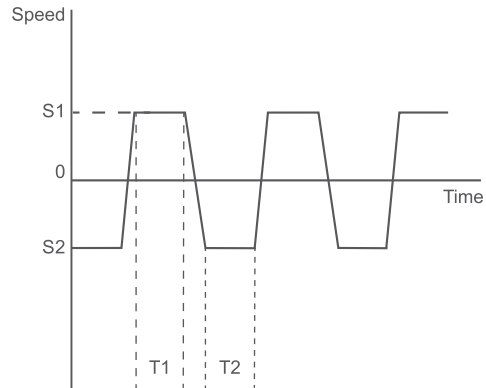
⇒ Sync

⇌ Cross Flow



Dismantling and Maintenance

• 冊 Laminar Flow Mode



S1 Adjustable range: -1000% — +100 %

S2 Adjustable range: -1000% — +100 %

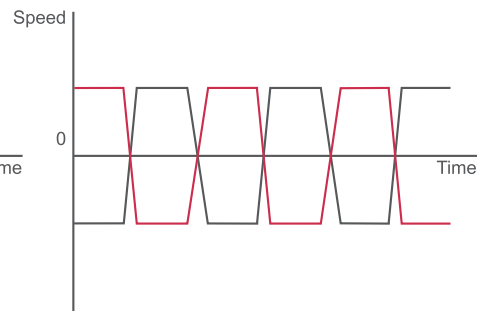
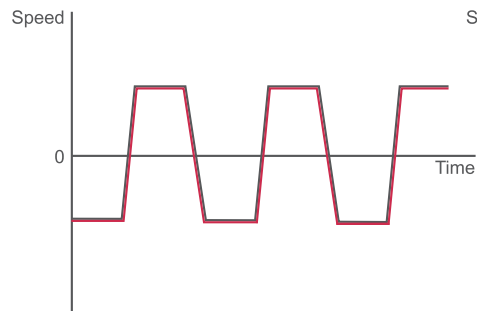
T1 Adjustable timing; 1min - 60 mins

T2 Adjustable timing; 1min - 60 mins

• A / B Pump synchronizing mode

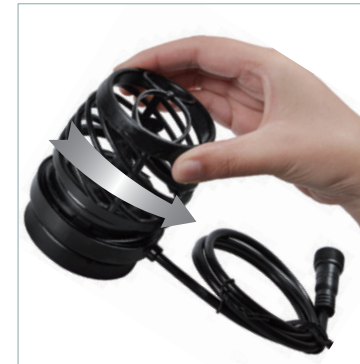
⇒ Sync

⇒ Cross Flow



— A Pump

— B Pump



1



2



3



4

- Turn Pump Cover Anti-Clockwise to remove cover (image 1) .
- Use a Flat Tip Screwdriver to remove the impeller cover plate (image 2/3) .
- Wash with fresh water.
- Snap Back the impeller cover plate evenly (image 4) .



5



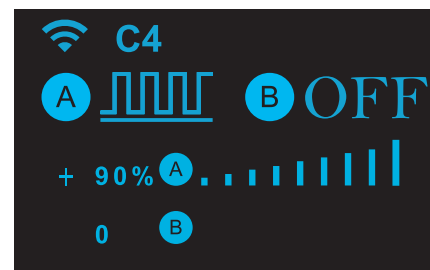
6



7

- Ensure that impeller is running smoothly before use (image 5) .
- Turn Pump Cover Clockwise to install cover (image 6/7) .

Trouble Shooting



- Error Warning (Flashing OFF) .

Causes	Solutions
Controller selection and actual pump model plug-in is incorrect.	Ensure the right model is plug in and selected.
Pump is running dry.	Ensure pump is submerge.
Shaft is loose or not secure tightly to the Impeller.	Replace the impeller rotor.
Connection to controller or pump is loose.	Turn off the device and check all connections.
Impeller not detected.	Turn off the device, ensure impeller is install correctly and spinning freely.
Impeller is blocked.	Remove all debris and clean the impeller chamber; Ensure that impeller and its magnet is in good condition without cracks or broken.
Inconsistent power supply or 5521 connection is not connected properly.	Replace Power Adapter.

Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.[illegible]



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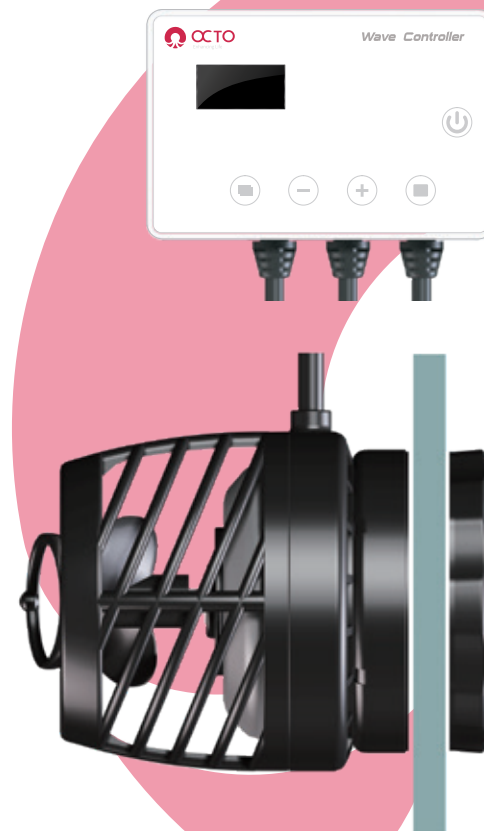


OCTO pulse +

产 品 说 明 书

OP-2+

OP-4+



亲爱的客户

感谢你选择OCTO产品！
为确保您的安全及使用时得到最佳效果，
请详细阅读此使用说明。

(阅读后，请保存这份手册，以备以后参考)

磁铁安全

- 警告-产品含有强磁磁铁，请谨慎操作。
- 请将磁铁置于远离小孩拿取范围之外。
- 请勿直接将两片磁铁放在一起。
- 请将磁铁远离电和磁性存储设备，如信用卡、起搏器等。

使用注意事项

● 使用pulse造浪泵前

拆除所有保护造浪泵、控制器和电源适配器的塑胶袋和包装材料。

● 电源安全

电源—请勿损害安全极性或接地式插头，请勿在您手潮湿的情况下拿插头或电源线。

电源线保护—请将电源线按一定路径放置，以便不会被放置在其上或其下面的物体踩踏或挤压，如果电源线损坏不可继续使用，需立即更换该电源线配套组件。

● 安装

安装仅限于室内，并且采用厂家提供和规定的附属装置和配件。

● 操作

使用控制器时，始终遵循使用手册中规定的操作说明。

● 热量

电源适配器和控制器需远离诸如散热器之类的热源，不要暴露于诸如太阳、火或其它类似物的过高热量环境中。

● 湿气

为了使用安全，降低火灾或电击风险，禁止把电源适配器和控制器暴露于下雨、潮湿、滴水或溅湿环境中。

造浪泵从水中取出时，避免一手同时提着泵和控制器；防止泵身的水顺着电线流入控制盒。

● 水损害

若电源适配器或控制器掉入水中，禁止伸手取出！首先应拔掉电源插头然后再取出。如内部的电子部件受潮，请立即拔掉该装置。

● 空载保护

泵体设计用于水下工作，请勿在没有进入水时运行。水泵控制器内设空载保护功能，无水运行1分钟泵会停转，需切断电源并确保水泵进水口有水后，再重新启动。

● 停转

许多因素会使水泵停止动作，请按手册说明中的“常见异常检修”内容检修。

● 清洁

请按手册说明定期清洁水泵。

产品特点

- 4种造浪模式可选择
- 控制器8级调速功能，暂停15min / 60min饲喂功能
- 控制器自带无水保护功能，无水干转1分钟控制器会切断电源，进入无水保护模式
- 控制器带有电机异常保护功能，当控制器检测到电机异常，如短路、断路等，会切断电机电源，进入异常保护模式，防止电机发热导致安全事故
- 工作电压DC24V，更安全
- 出水角度360° 自由设定
- 无槽无刷电机，无齿槽效应，配合正弦波驱动方式、优质强磁四极转子；运转更平稳、静音
- 可使用外部0-10V控制
- 可使用OCTO APP控制

产品规格

OCTO Pulse Wave Pump										
产品编码	型号	最大流量		功率	适合水体		建议适合鱼缸		建议最大玻璃厚度	
		LPH	GPH		L	US GAL	cm	in	mm	in
9010407009	OP-2+	6000	1585	5-10	80-300	21-80	40-100	16-40	12	1/2
9010408009	OP-4+	17000	4490	11-32	300-1800	80-475	100-180	40-71	15	5/8

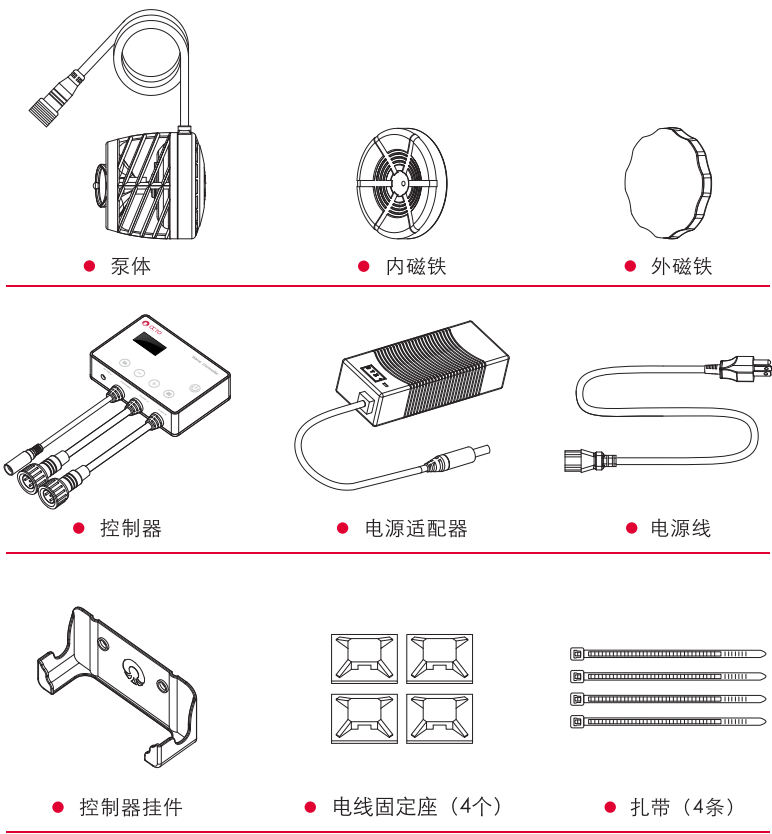
各个档位流量参数

OP-2+			
档位	功率	流量	
	W	LPH	GPH
+30%	5.0	3200	845
+40%	6.0	3800	1000
+50%	6.5	4050	1070
+60%	7.0	4450	1170
+70%	7.5	4720	1250
+80%	8.5	5100	1350
+90%	9.5	5820	1540
+100%	10.0	6000	1585

OP-4+			
档位	功率	流量	
	W	LPH	GPH
+30%	11	5360	1410
+40%	14	7900	2080
+50%	17	9600	2530
+60%	20	11300	2980
+70%	22	12400	3270
+80%	25	14100	3720
+90%	28	15900	4200
+100%	32	17000	4490

配件明细

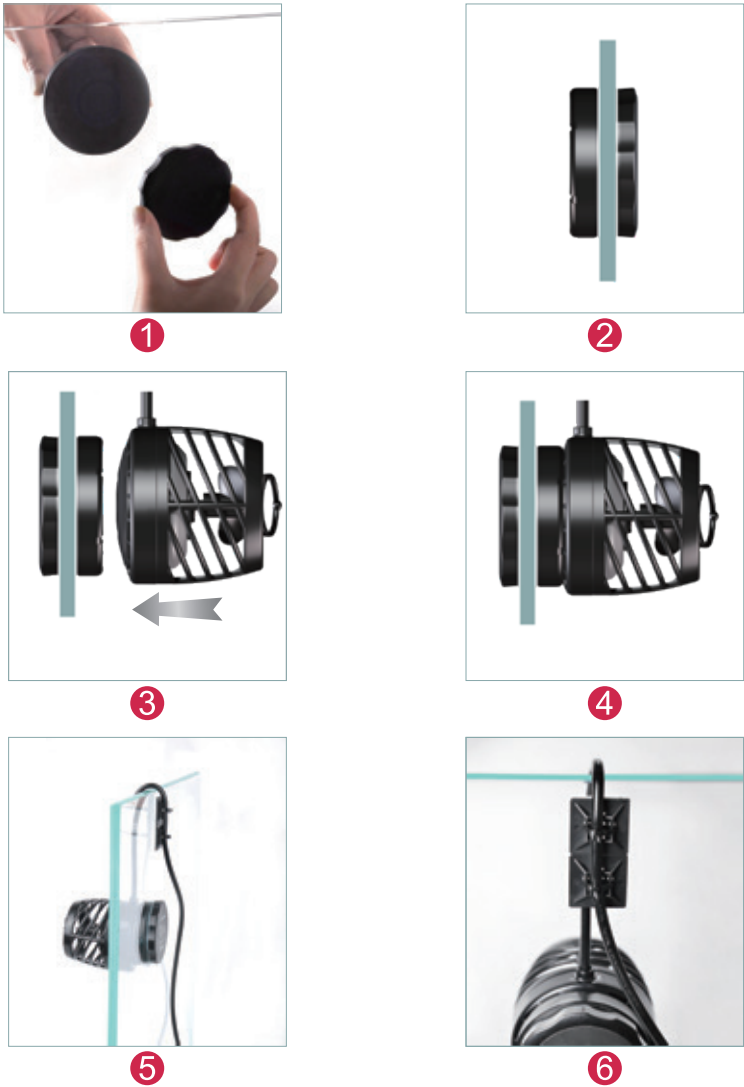
请检查包装内物件是否齐全



注意：
DC24V/1.0A电源适配器可以搭载：OP2 / OP2+OP2
DC24V/2.5A电源适配器可以搭载：OP4 / OP4+OP2
DC24V/4.0A电源适配器可以搭载：OP4 / OP4+OP4

安装连接

● 固定泵体



- 固定内磁铁在鱼缸玻璃内壁，外磁铁沿着玻璃外壁滑动，使内外磁铁吸附在一起(如图1 / 2; 请小心操作，谨防击碎玻璃)
- 将泵体吸附在内磁铁上，电线向上(如图3 / 4)
- 用扎带将泵体电线固定在鱼缸外壁(如图5 / 6)

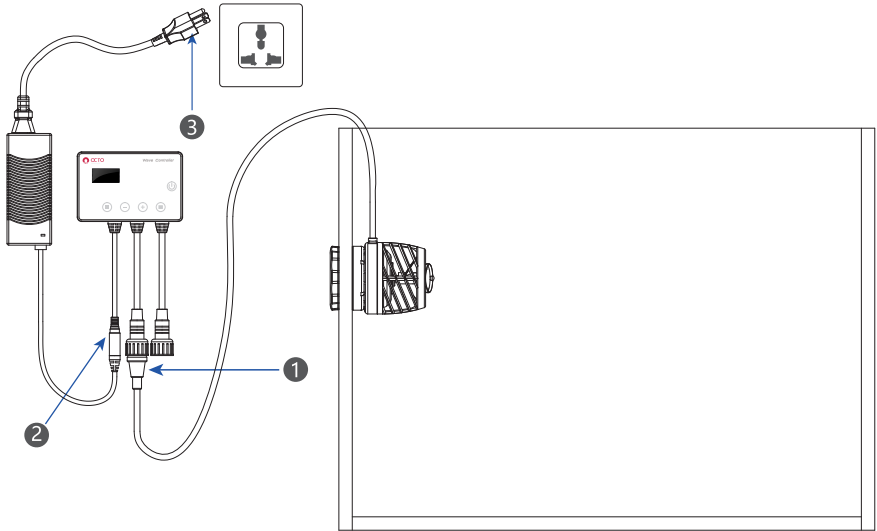
● 调整出水角度



- 泵体可以沿着内磁铁的凹槽移动，调整出水方向(如图7 / 8)

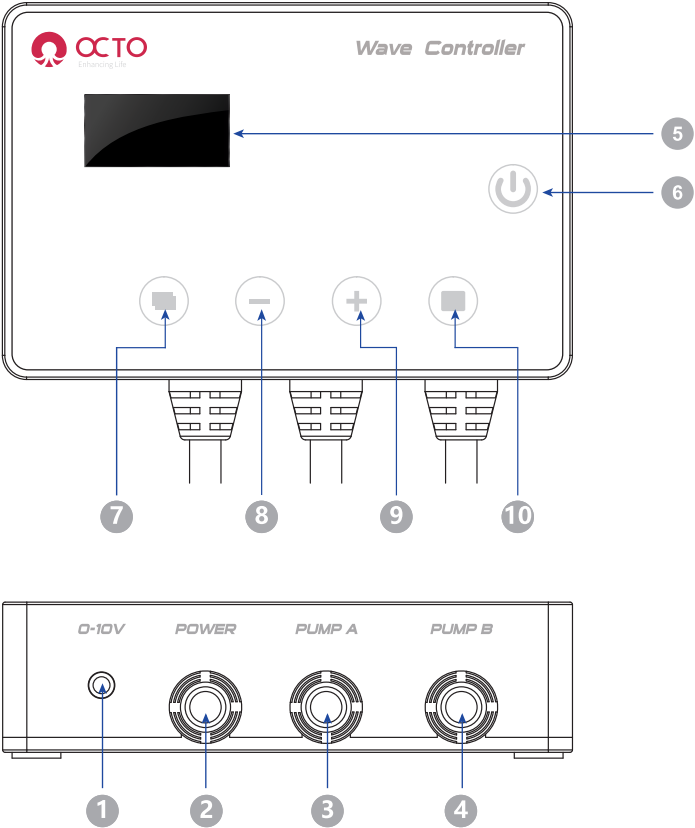
● 连接顺序

水泵控制器具有保护泵体的功能设计，使用时必须先连接控制器与泵体(1处)，再连接电源适配器与控制器(2处)，最后电源适配器接通电源(3处)。



注意： 安装时请确保缸中的生物与造浪泵保持适当的距离。

造浪泵控制器使用指南



• 串口定义

- 1 0-10V信号接入口(3.5mm三段音频口)
- 2 电源插孔, 接DC电源(DC24V)
DC24V/1.0A: OP2 / OP2+OP2
DC24V/2.5A: OP4 / OP4+OP2
DC24V/4.0A: OP4 / OP4+OP4
- 3 造浪泵连接口 A
- 4 造浪泵连接口 B
- 5 显示屏

• 按键定义

- 6 开关键 / 暂停键
开关键: 控制器通电默认开启, 长按(⏻)3秒关闭 / 开启;
暂停键: 按一下(⏻), 进入暂停模式; 通过(⏮)和(⏭) 选择15min或者60min暂停, 按一下(⏻)确认所选择的时间;
- 7 设置键 / WiFi开关键
设置键: 按一下(⏻), 进入设置泵参数界面, 再按一下返回工作界面;
WiFi开关键: 长按(⏻)3秒, 显示屏出现(📶), WiFi功能打开;
注意: WiFi功能打开后, 只有开关键 / 暂停键 / WiFi开关键 / 配网组合键 / 选择泵型号组合键 / 恢复出厂设置组合键有效; 其他按键无效。即此时泵的参数只能通过APP设置。
- 8—9 通过按(⏮)或者(⏭)调整造浪模式 / 调整波浪大小 / 调整波浪维持时间 / 调整暂停时间;
- 10 确认键 / 切换选项按键。

• 组合按键

- 选取泵型号: 同时长按(⏻)和(⏻)3秒。
- 进入配网模式: 在WiFi开关开启的前提下, 同时长按(⏮)和(⏭) 3秒, 进入配网模式, (📶)开始闪烁。
- 恢复出厂设置: 同时长按(⏻)和(⏻)3秒。

• 注意

- 1 接入0-10V信号后, 控制盒只有开关功能 / 暂停功能有效, 其他功能无效。
- 2 WiFi功能打开后, 只有开关键 / 暂停键 / WiFi开关键 / 配网组合键 / 选择泵型号组合键 / 恢复出厂设置组合键有效; 其他按键无效。即此时泵的参数只能通过APP设置。
- 3 三分钟无操作, 显示屏进入息屏状态; 双击任意按键点亮显示屏。

3.5mm音频插接线图:



显示屏图标介绍

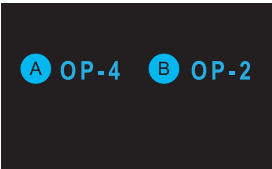
- WiFi 开启图标 (只有 WiFi 开关开启后, 才会显示)。
- (闪烁) : 处于配网模式, 请在APP中进行配网。
- (闪烁) : 设备处于离线状态, 请检查网络 (注意: 首次开启 WiFi 开关或者恢复出厂设置后, 开启 WiFi 开关, 也是这个图标; 配好网就会显示正常)。
- C2 只有在 WiFi 开启后, 才会显示; 总共有5个时间段, 显示当前工作的时间段。
- 此图标显示, 请更换纽扣电池。

- 恒速模式
- ⇄ 联动 (同步) 模式
- 波浪模式
- ⇄ 联动 (异步) 模式
- 正反转模式

- S1 最高转速
- T1 最高转速维持时间
- S2 最低转速
- T2 最低转速维持时间

界面介绍

选择泵型号界面



- 同时长按()和()3秒
- 通过(-) (+)选择泵A的型号
- 点击()设置B泵的型号
- 通过(-) (+)选择泵B的型号
- 点击(), 保存并退出界面, 进入工作界面

工作界面



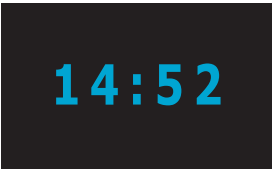
- 当前造浪模式
- +90% 当前转速
- 转速指示器

设置界面



- 点击(), 进入此界面
- 通过(-) (+)选择想要的参数
- 点击(), 切换选项
- 点击(), 保存参数并退出设置界面

定时界面



- 点击(), 进入定时界面
- 通过(-) (+)选择暂停的时间
- 点击(), 确认所选时间

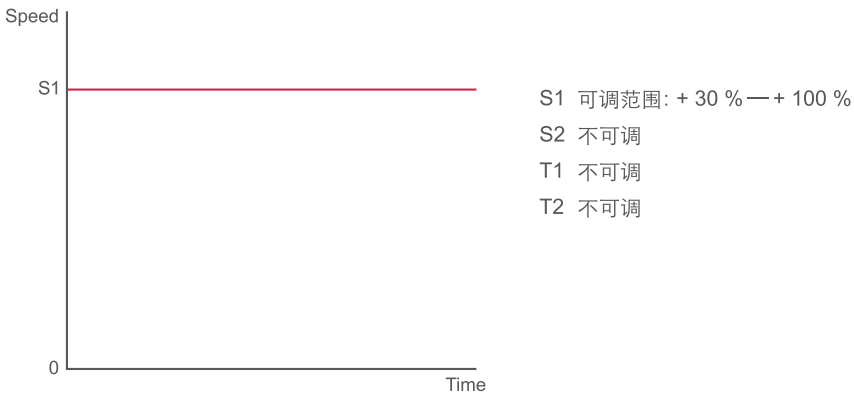
控制器关闭界面



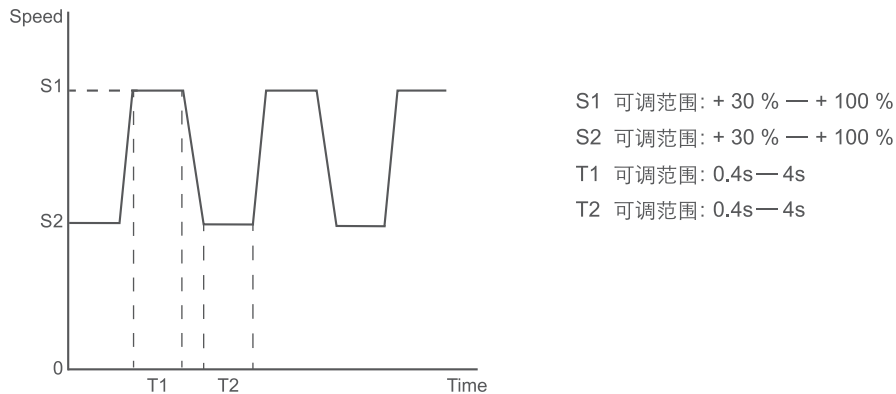
- 长按()3秒, 控制器关闭, 泵不工作
- 再次长按()3秒, 恢复到工作界面, 泵再开始工作

造浪模式介绍

→ 恒速模式 Constant Flow Mode



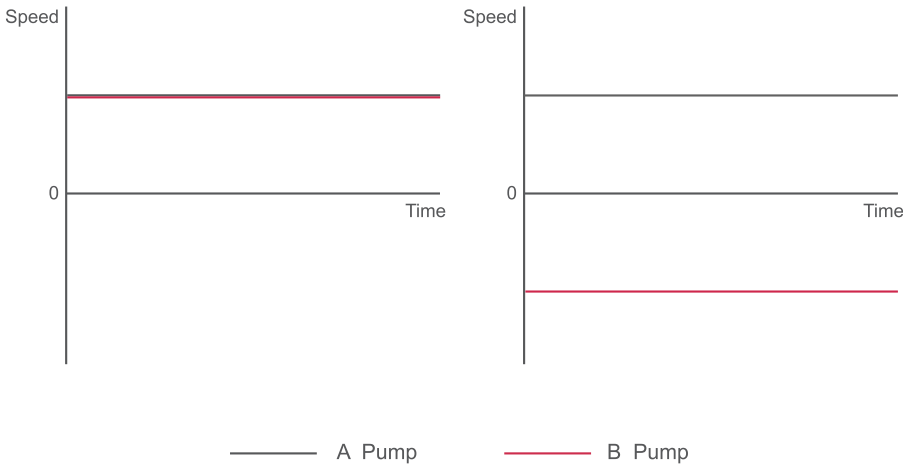
⏏ 波浪模式 Pulsing Mode



• A / B泵联动模式

⇒ 同步模式

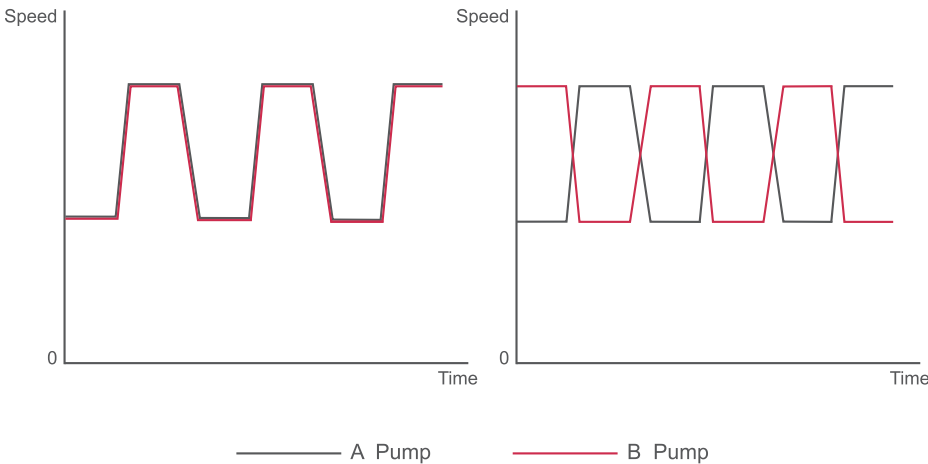
⇌ 异步模式



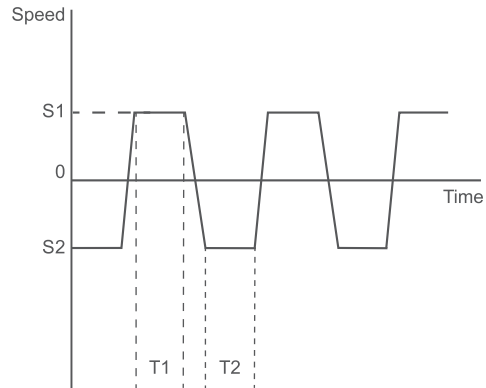
• A / B泵联动模式

⇒ 同步模式

⇌ 异步模式



• 正反转模式 Laminar Flow Mode



S1 可调范围: - 1000 % — + 100 %

S2 可调范围: - 1000 % — + 100 %

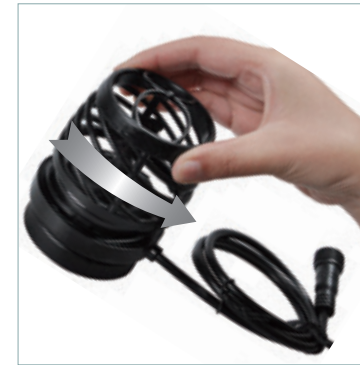
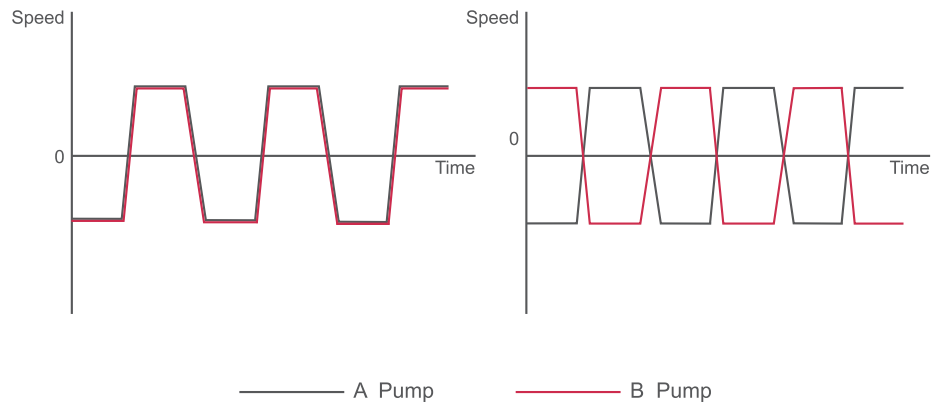
T1 可调范围: 1min — 60min

T2 可调范围: 1min — 60min

• A/B泵联动模式

⇒ 同步模式

⇒ 异步模式



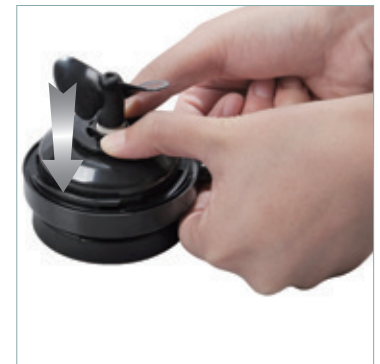
①



②



③



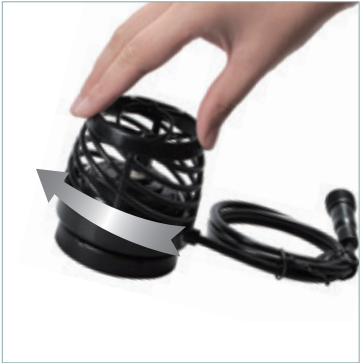
④

- 逆时针旋转防护罩，取下防护罩 (图1)
- 用一字螺丝刀撬动转子，取出转子 (图2 / 3)
- 清洗泵腔和转子
- 装入转子 (如图4)

常见故障/报警处理



5



6



7

- 检查转子转动是否顺畅（如图5），如不顺畅，重复图2 / 3 / 4步骤
- 顺时针方向旋转防护罩，安装防护罩（如图6 / 7）



- 报警提示（OFF闪烁）

原因	解决办法
控制器选取的驱动程序和接驳泵的型号不匹配	按照接驳泵型号，选取控制器的驱动程序
泵处于无水保护状态 (无水运转或者泵距离水面太近)	将泵放入水中 / 泵距离水面适当深些
轴打滑或者叶轮打滑	更换转子
没有连接泵或者泵和控制器之间的插头没插好	接上泵 / 重新接好泵和控制器之间的接头，通电
没装转子	断电，装好转子；用手拨动转子，要转动的很顺畅
堵转/卡转	拆开防护罩，看是否有异物在泵腔及转子叶轮上；安装转子，用手手动波动转子，要转动的很顺畅
电源输出不稳定 / 或者5521接头处接触不良	更换电源适配器，排除电源适配器的问题

Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.