



ReefRUN® G2 DC Pump

User Manual

ENG

Contents (clickable)

Introduction	3
Safety	4
Data Sheet	5
ReefRun G2 Components	6
Connectors	7
Installation & Operation	8
Flow Controller	10
Operation Instructions for independent operation	11
Connecting to the ReefRun Dual Controller	12
Flow Controller – ReefBeat Operation	13
Pump Maintenance	14
Warranty	15

Introduction

Congratulations on your purchase of Red Sea's ReefRun® DC Pump.

This manual covers the physical installation and maintenance of the ReefRun pumps.

The ReefRun G2 pumps can operate independently, or as part of the ReefBeat ecosystem via the ReefRun Dual Controller, that provides control of up to 2 ReefRun compatible DC return pumps, DC skimmer or a combination of both. Read the manual provided with the ReefRun Dual controller for full installation and operation instructions for the controller.

The ReefRun Dual Controller is part of Red Sea's suite of smart devices that are operated via Wi-Fi by Red Sea's ReefBeat® App, which needs to be installed on a smart mobile device with internet connectivity.

Welcome to Red Sea's smart reef-keeping.

Sincerely,

The Red Sea Team



Safety

PLEASE READ AND FOLLOW ALL SAFETY INSTRUCTIONS

THIS DEVICE IS INTENDED FOR INDOOR USE ONLY.

DANGER: To avoid possible electric shock, special care should be taken when handling a wet aquarium. For each of the following situations, do not attempt repairs yourself; return the appliance to an authorized service facility for service or discard the appliance.

WARNING: To guard against injury, basic safety precautions should be observed, including the following:

Do not operate any appliance if it has a damaged cord or plug, if it is malfunctioning, or if it is dropped or damaged in any manner.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory, or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

The appliance is only to be used with the power supply unit provided with the appliance. Close supervision is necessary when any appliance is used by or near children.

To avoid injury, do not contact ☐ moving parts.

Always unplug an appliance from an outlet when not in use, before putting on or taking off parts, and before cleaning.

Never pull the cord itself to remove the plug from the outlet.

Grasp the plug and pull to disconnect.

Do not use an appliance for anything other than its intended use. The use of attachments not recommended or sold by the appliance manufacturer may cause unsafe conditions.

Do not install or store the appliance where it will be exposed to the weather or to temperatures below freezing point.

Make sure an appliance is securely installed before operating it.

Read and observe all the important notices on the appliance.

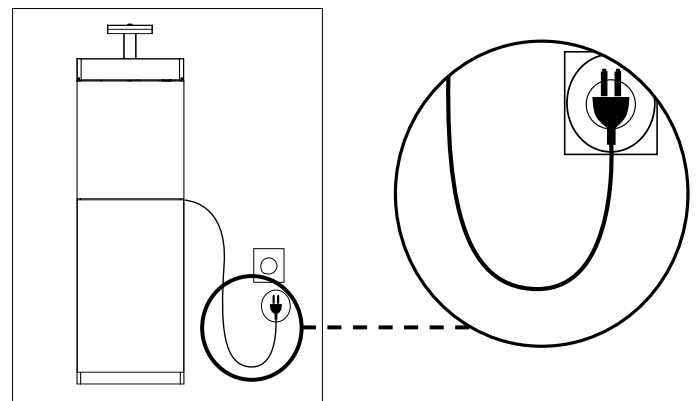


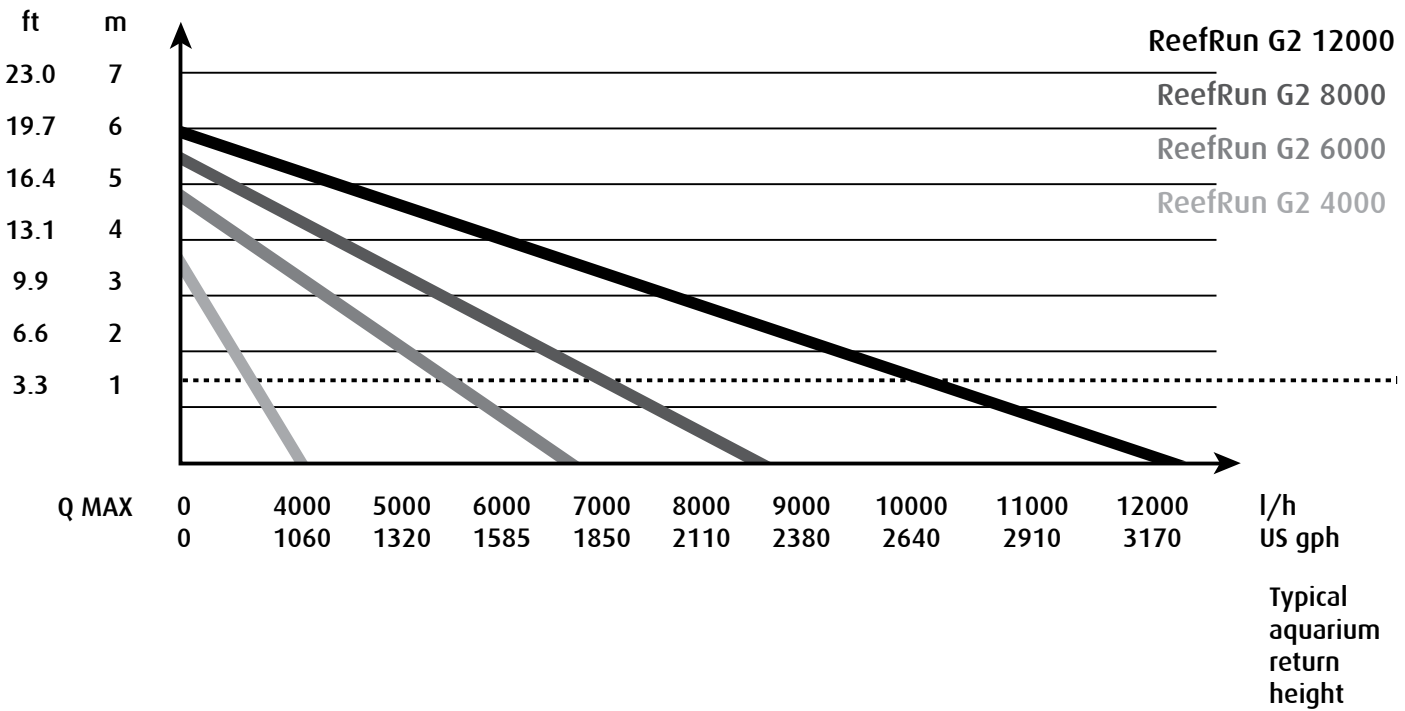
Figure 1: Drip loop

Note: A cord rated for less amperes or watts than the appliance rating may overheat. Care should be taken to arrange the cord so that it cannot be tripped over or pulled accidentally. Do not use if cord is damaged. In case of need, do not attempt to replace or repair yourself; return the appliance to an authorized service facility for service or discard the appliance. In case of need, do not attempt to replace yourself; return the appliance to an authorized service facility for service or discard the appliance.

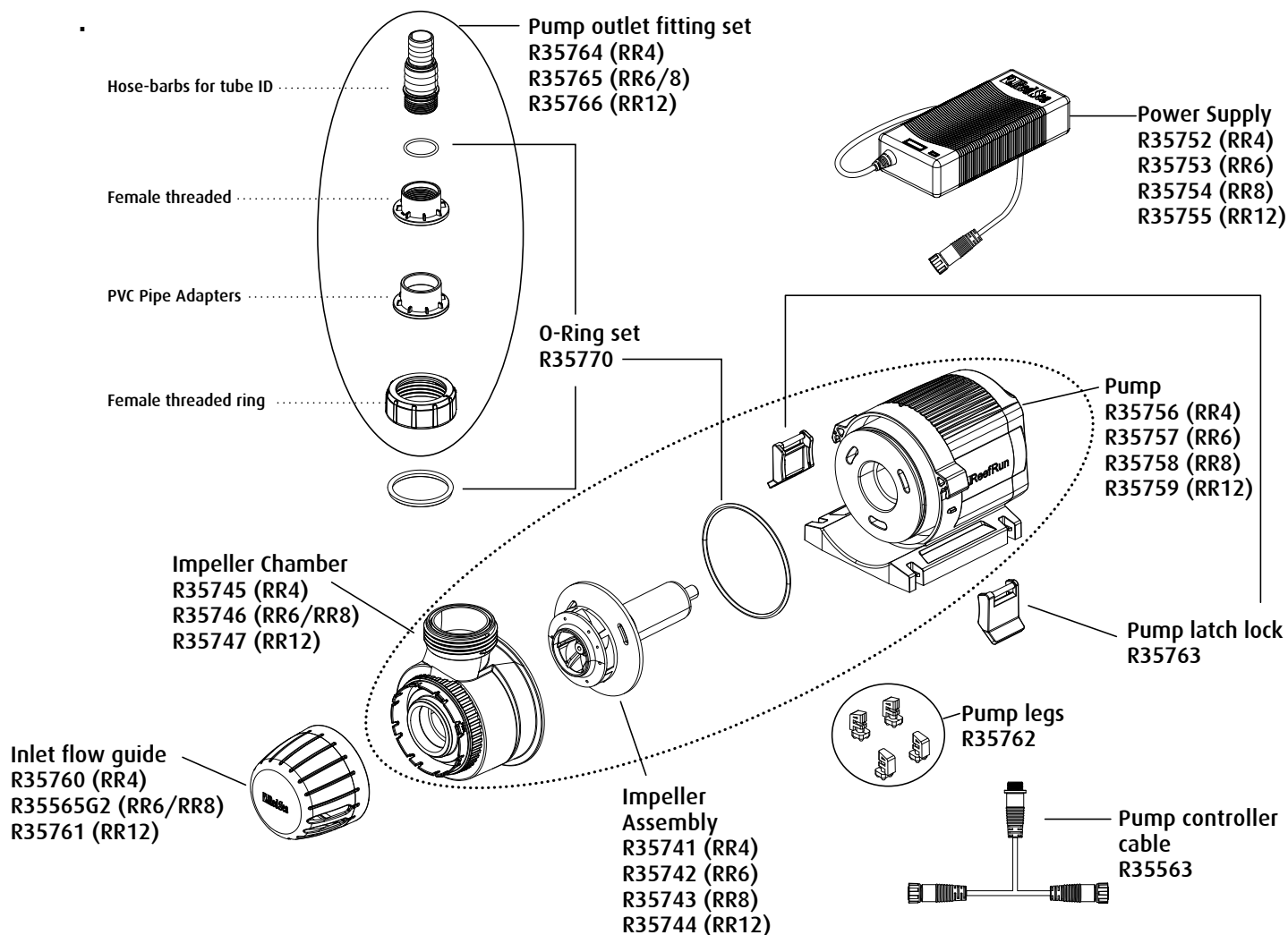


Data Sheet

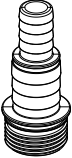


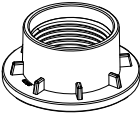

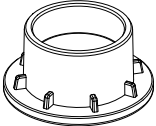
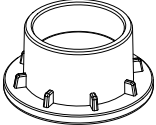
	ReefRun G2 4000	ReefRun G2 6000	ReefRun G2 8000	ReefRun G2 12000
Flow MIN – MAX	2000-4000 l/h 530 - 1060 US gph	3600-6500 l/h 950 - 1700 US gph	4100-8300 l/h 1080 - 2200 US gph	5000-12000 l/h 1300 - 3200 US gph
Max height	3.4 m 11.2 ft	4.4 m 14.4 ft	5.3 m 17.4 ft	5.8 m 19 ft
WATT	16 - 38 W	22 - 56 W	24 - 73 W	33 - 105 W

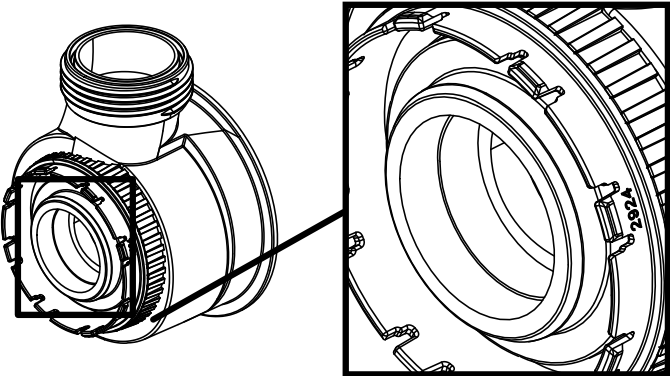


ReefRun G2 Components



Connectors

		ReefRun G2 4000	ReefRun G2 6000	ReefRun G2 8000	ReefRun G2 12000
Hose-barbs for tube ID					
	17/25mm ($\frac{5}{8}$ " / 1")	✓	✓	✓	
	25/32mm (1" / 1¼")		✓	✓	✓
Female threaded					
	¾" GAS	✓	✓	✓	
	1" GAS		✓	✓	✓
PVC Pipe adapters					
	25mm ($\frac{3}{4}$ ")	✓	✓	✓	
	32mm (1")		✓	✓	✓
	40mm (1¼")				✓

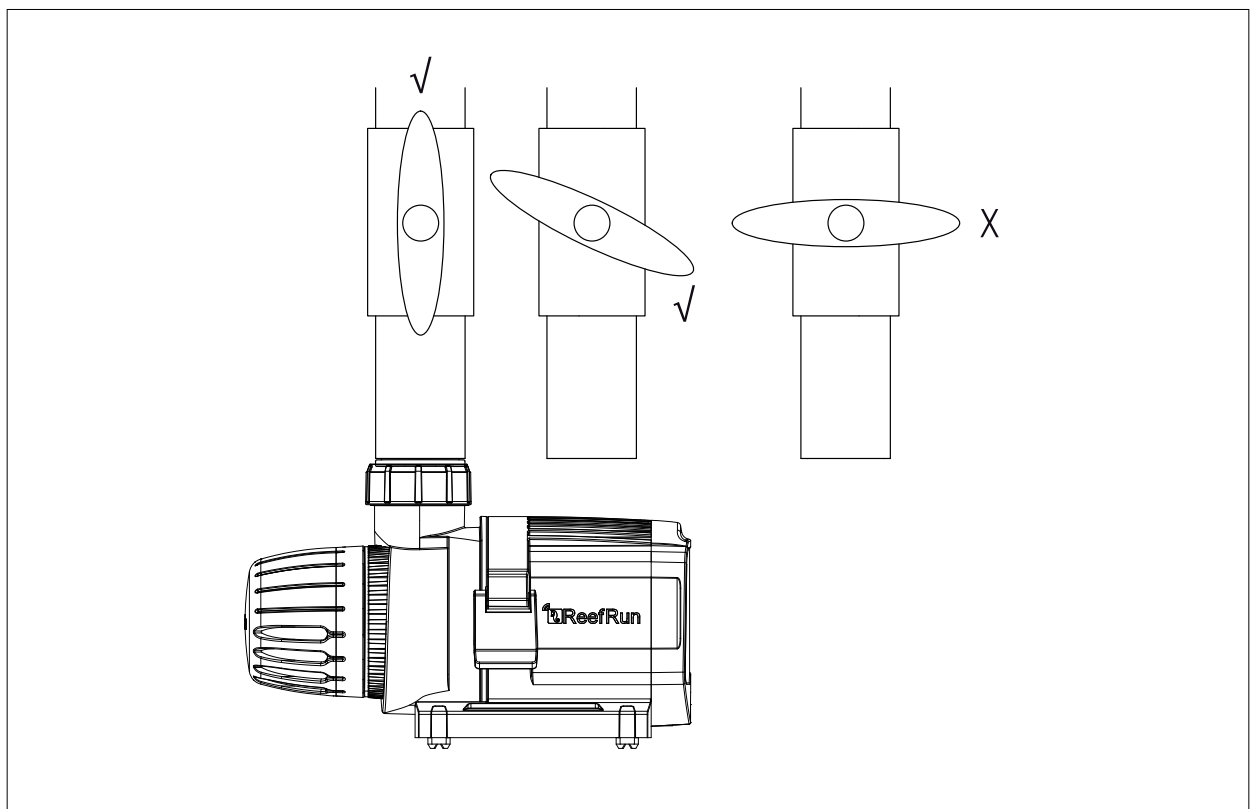
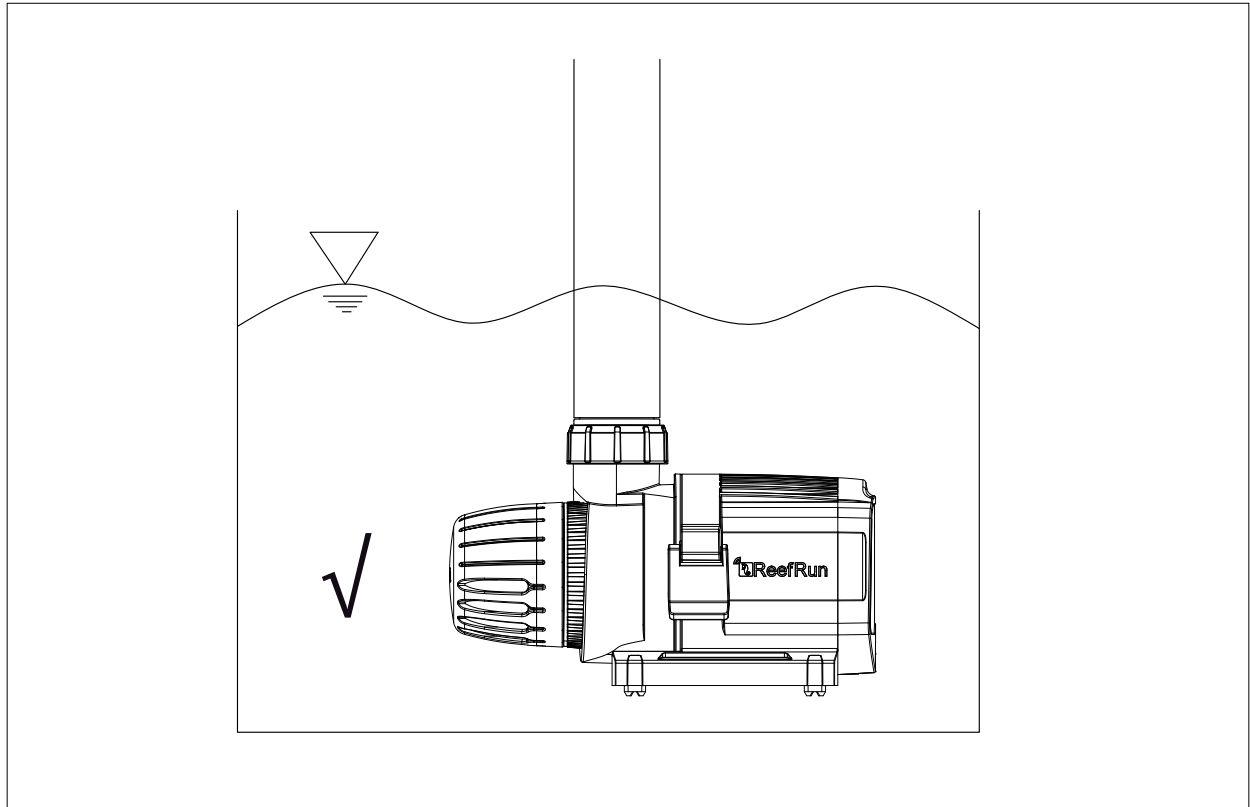
Impeller chamber inlet	
	ReefRun G2 4000
	ReefRun G2 6000
	ReefRun G2 8000
	ReefRun G2 12000
	25mm & ¾"
	32mm & 1"
	32mm & 1"
	40mm & 1¼"



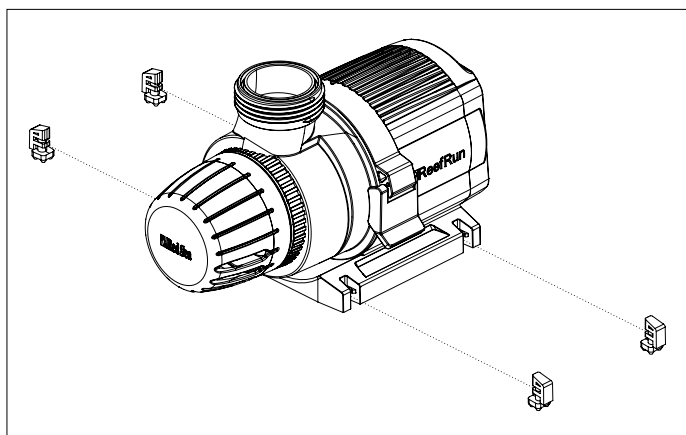
Installation & Operation

Before installing the pump, disassemble and reassemble to familiarize yourself with the component parts.

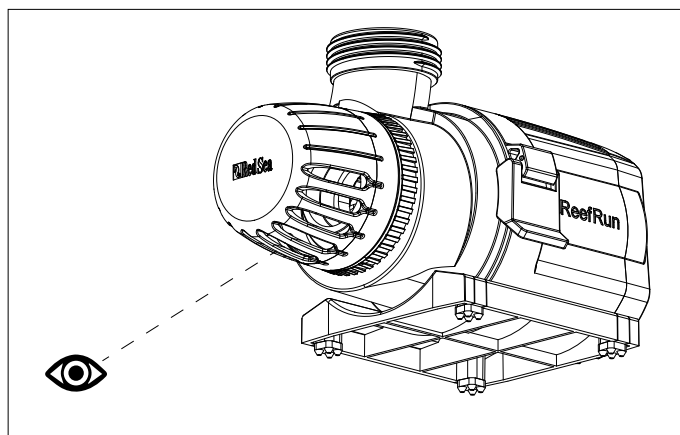
Select the appropriate place for locating the pump inside your sump taking care to observe the positioning guidelines shown below.



Assemble the 4 rubber feet to the bottom of the pump.



Rotate the flow guide so that the water inlets are facing the bottom of the sump.



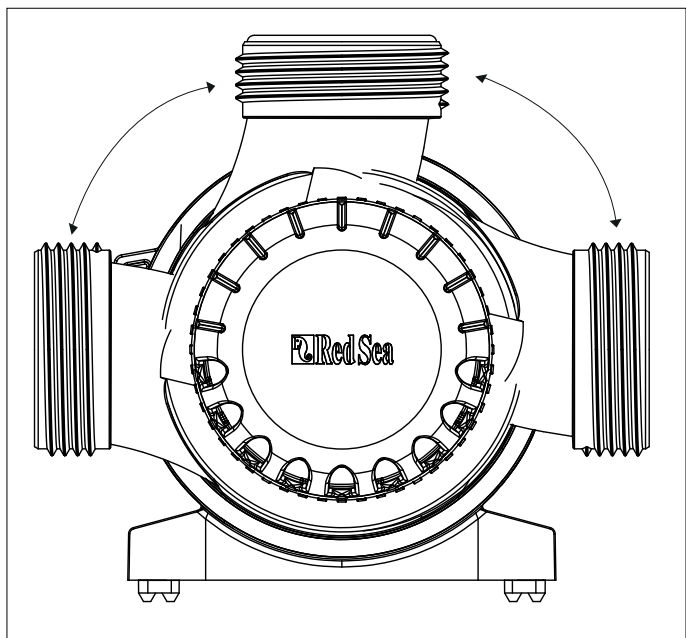
Rotate the pump impeller chamber to provide the best direction for connecting the outlet of the pump to the inlet of the aquarium. Thread the pump cable such that the cable connector is in a convenient place for disconnect / reconnect when doing pump maintenance.

Select and assemble the appropriate hard pipe or flexible tube connectors to the outlet of the pump.

If you are using flexible tubing, make sure that it is securely fastened to the hose barbs with hose clips.

Note: The ReefRun pumps are supplied with outlet fittings for installing it fully submerged inside a sump. The water inlet of the impeller chamber is designed for gluing standard metric and imperial PVC pipes.

The pump has built in safety features to prevent damage to the pump in the cases where the pump is not in the water or the impeller cannot rotate. The Flow Controller automatically shuts the pump down and enables the pump to be restarted from the controllers/App once the issue has been resolved. After multiple unsuccessful restarts the Flow Controller may need to be disconnected from the controller cable/PSU for about 30 seconds before it can be restarted.



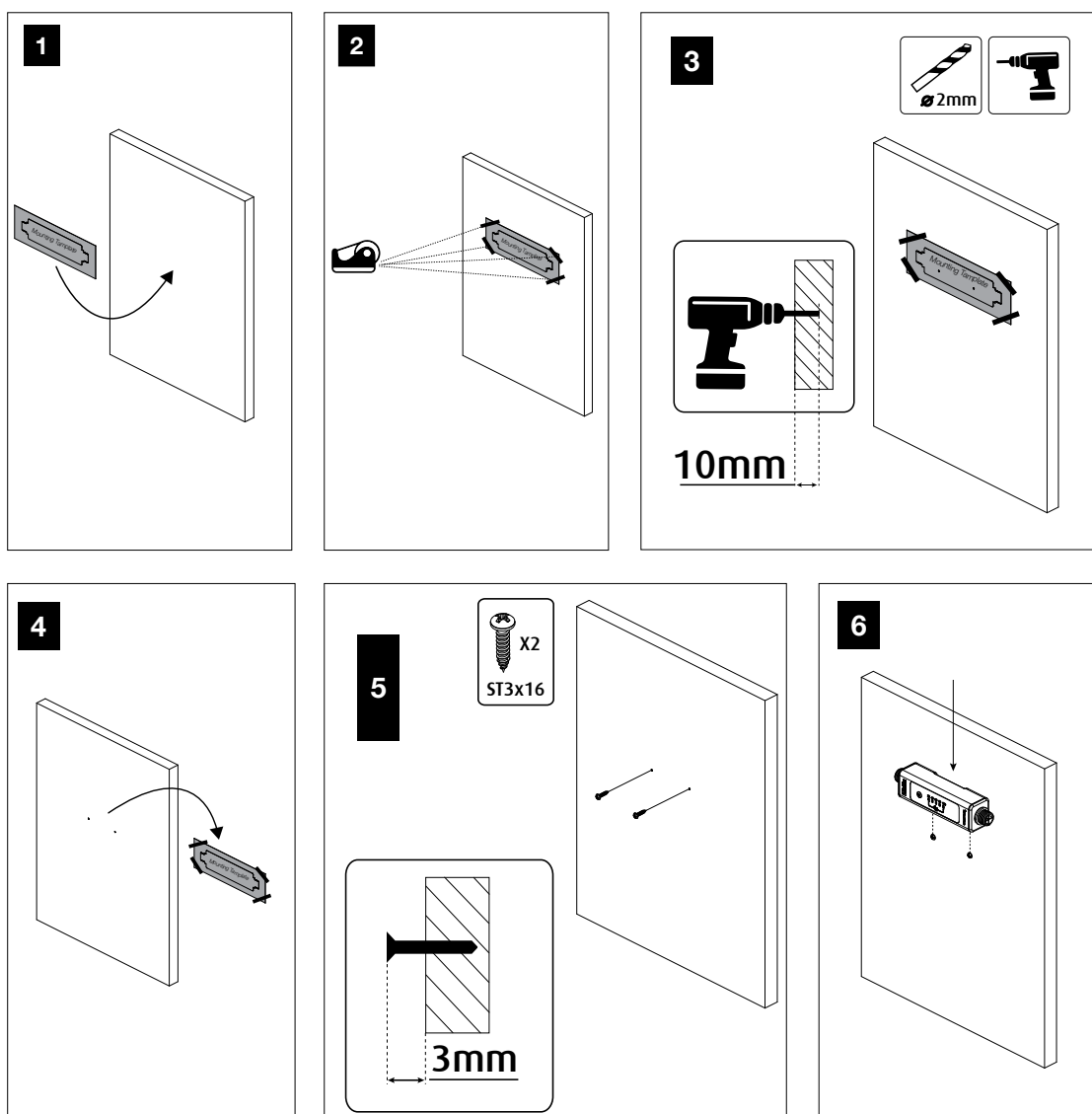
Flow Controller

The Flow Controller is required, irrespective of whether you will operate the pump independently or via the ReefRun Dual controller.

When connected to the ReefRun Dual Controller the Flow Controller does not need to be easily accessible as all of the control is done by the ReefRun Dual Controller or the App.

When using the pump independently make sure that the Flow controller is easily accessible as it is required to switch the pump on/off or for adjusting the flow rate. Use the mounting template provided if you wish to attach the Flow Controller to the cabinet.

Note: The Flow Controller is water-resistant which means that it is splash proof and will not be damaged by short accidental immersion in water, when the cables are properly attached. It is not waterproof and is not designed to be permanently submersed under water.



Operation Instructions for independent operation

Button & Indicator LEDs.

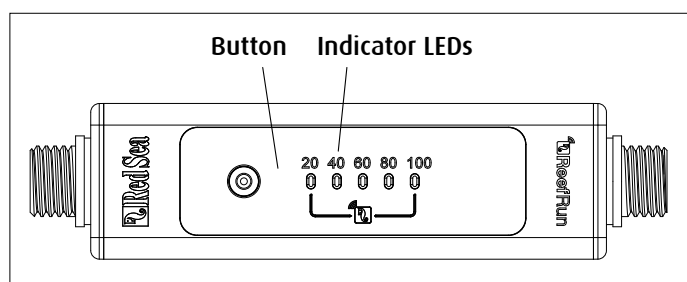
Button: Switches pump ON /OFF, sets pump flow rate and resets pump after an error state.

Indicator LEDs show functional and error states, and flow rate when pump is operational.

Long press on button (approximately 3 seconds) switches the pump ON /OFF.

When the pump is on, each short press will increase the pump flow rate in steps of 20%. When the flow is at 100%, the next button press returns the pump to 20%.

When the pump is in an error mode shutdown (stalled/dry), a long press on the button will try to restart pump, if the cause of the error has not been resolved the error shutdown will reoccur.



When the pump is on and running normally, the flow rate will be indicated as follows:

20% flow - 20% LED will remain ON

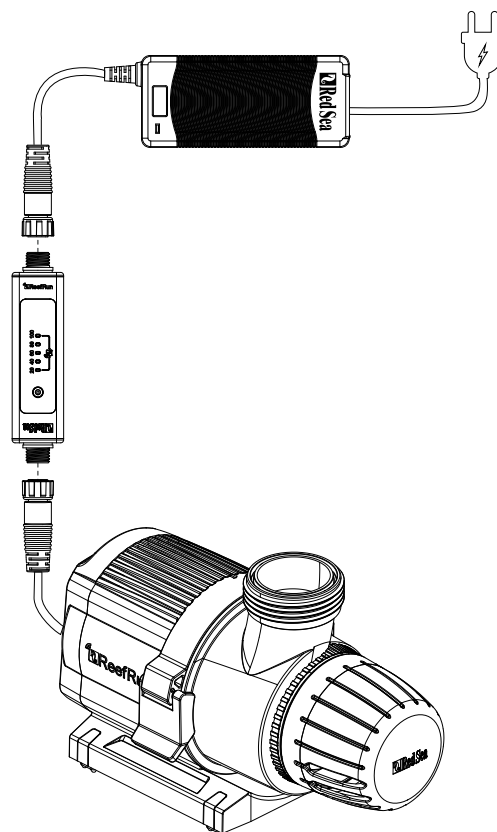
40% flow - 20% & 40% LEDs will remain ON

60% flow - 20%, 40% & 60% LEDs will remain ON

80% flow - 20%, 40%, 60% & 80% LEDs will remain ON

100% flow - 20%, 40%, 60%, 80% & 100% LEDs will remain ON

When the pump has been switched OFF by the user, the indicator LEDs, according to the set flow rate, will blink. When the pump is switched back ON by the user, the pump will restart at the previous flow rate and the indicator LEDs will stop blinking and remain on.



If the pump enters any of the following error states it will shut down until the malfunction corrects itself or is resolved by the user, the error message will be indicated by the alternate blinking of the LEDs as follows:

Pump stalled or disconnected - 40% & 60% LEDs blinking alternately

Pump dry - 60%, & 80% LEDs blinking alternately

Wrong or faulty PSU - 20% & 40% blinking alternately (check that the correct PSU is connected)

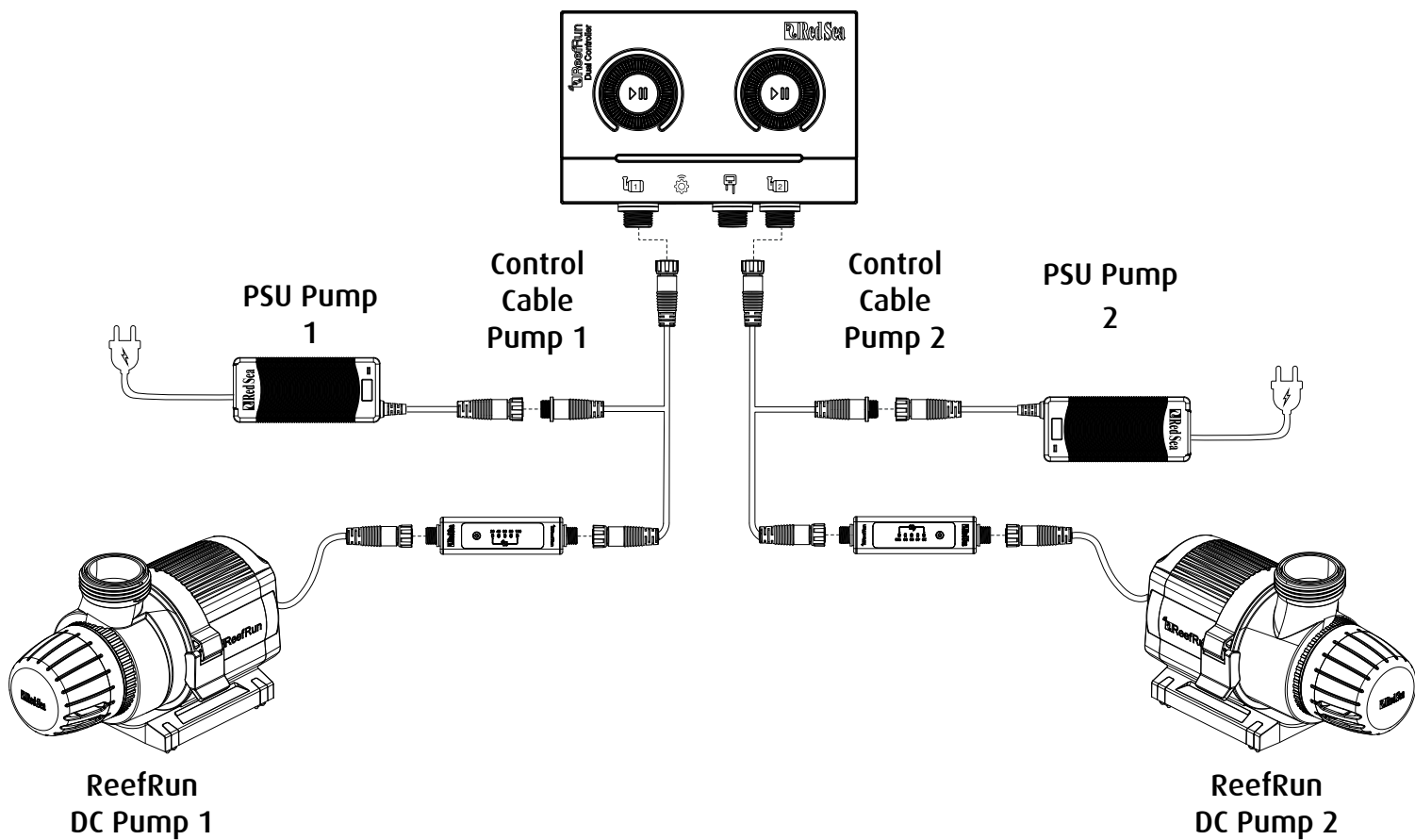
Faulty pump/controller - 80%, & 100% LEDs blinking alternately (contact customer support)

Controller overheating - 40% & 80% LEDs blinking alternately (relocate the flow controller to a more ventilated area).

Note: A power reset of the flow controller will reinstate the previous ON/OFF state and flow rate. Error states are not stored and will return after approximately 1 minute if the issue has not been resolved.



Connecting to the ReefRun Dual Controller



Flow Controller – ReefBeat Operation

When the Flow Controller is connected to the ReefRun Dual Controller (ReefBeat mode), all pump states are indicated by the 20% & 100% indicator LEDs.

20% & 100% LED indicators ON - pump ON

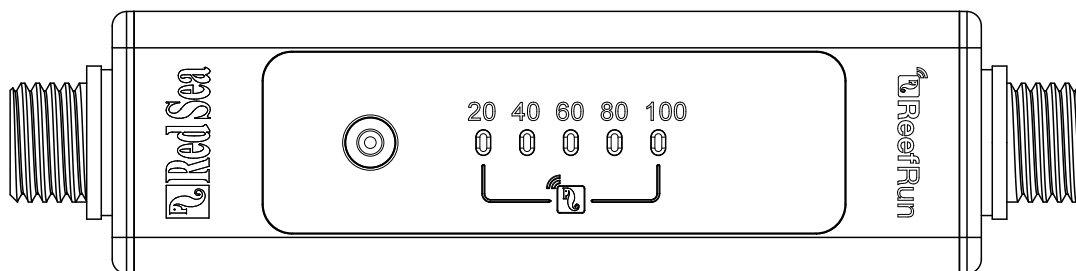
(The flow rate is shown by the indicator LEDs on the ReefRun Dual controller.)

20% & 100% LED indicators blinking - pump OFF

20% & 100% LED indicators alternate blinking - pump in error state.

When the Flow Controller is connected to the ReefRun Dual Controller a long press on the Flow Controller button (approximately 3 seconds) switches the pump ON /OFF, this is equivalent to the short press on the ReefRun Dual Controller.

Read the ReefRun dual controller instructions before operating the pump.

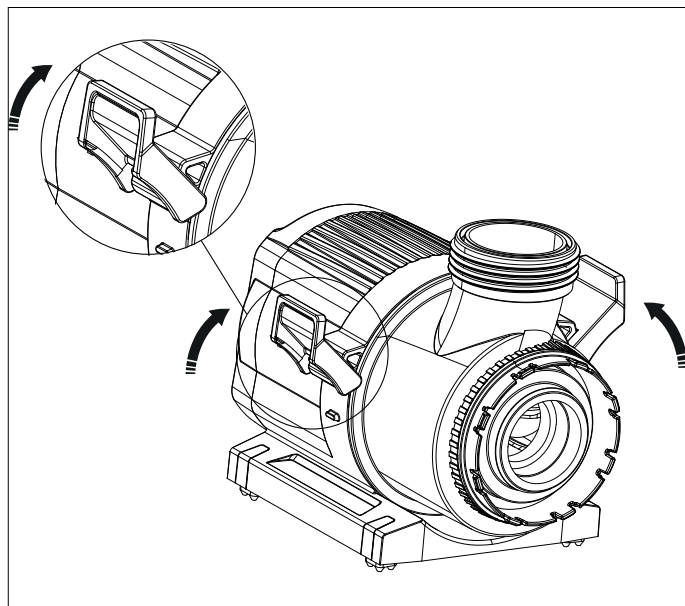


Pump Maintenance

For continued smooth running of the ReefRun pumps we recommended cleaning the pump on a regular basis to remove organic and calcium carbonate deposits.

Before undertaking maintenance, switch the pump off from the controller or App and disconnect the pump from the controller cable. Ensure that the Cable Connector does not fall into the sump.

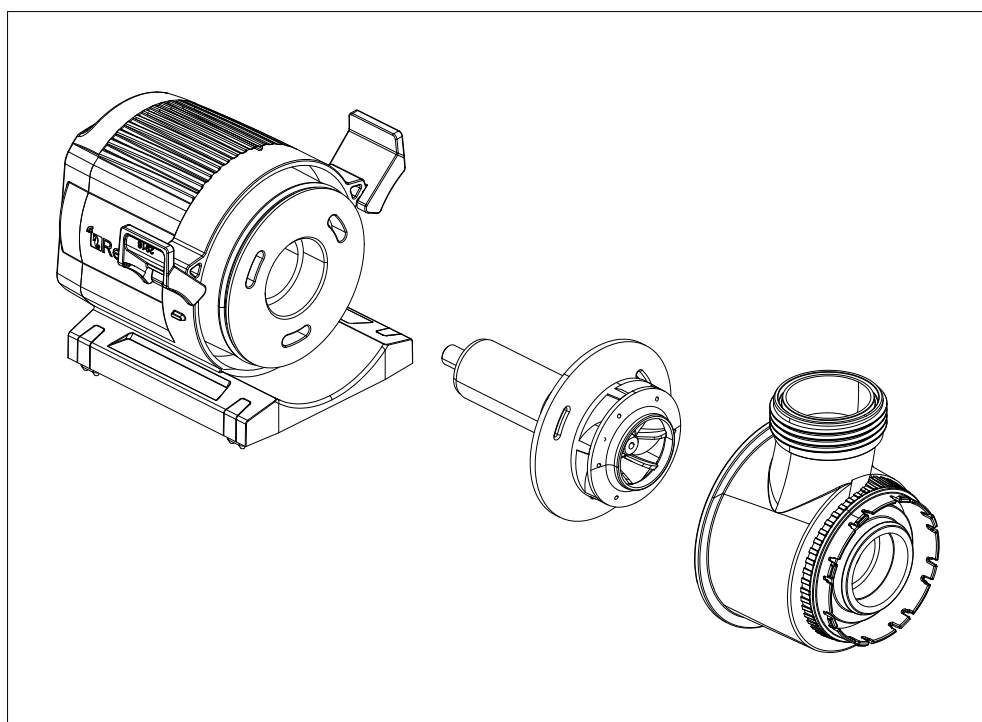
Remove the pump impeller chamber by rotating the latches upward and rotating/pulling the impeller chamber away from the pump body.



Pull the complete impeller assembly completely out of the body.

Rinse the impeller assembly and the pump body with water and use a soft brush to remove deposits. If necessary, soak the impeller assembly and the pump in a slightly acidic solution (such as diluted vinegar). Remove all rubber parts such as O-rings and feet before soaking.

NOTE: the impeller shaft has a very strong magnet. Hold the impeller firmly when lowering the impeller shaft into the chamber. Care must be taken not to damage the ceramic bearing at the bottom of the impeller chamber.



Warranty

Red Sea Products Limited Warranty.

Thank you for purchasing a Red Sea ReefRun DC-Pumps (hereinafter "the Product").

Red Sea Aquatics (UK) Ltd. (hereinafter "Red Sea") warrants the ReefRun DC-pump motors against manufacturer's defects in material and workmanship for 2 years from your date of purchase.

ReefRun DC-pump impellers are a wear item and as such Red Sea warrants the ReefRun DC-pump impellers against manufacturer's defects in material and workmanship for 6 months from your date of purchase.

The warranty provided by Red Sea is NOT TRANSFERABLE AND IS LIMITED TO THE ORIGINAL PURCHASER. If the Product is eligible under this warranty, Red Sea will either repair the Product free of charge (not including shipping costs) with new or refurbished parts or replace the Product with a new or refurbished Product at Red Sea's sole discretion.

This warranty DOES NOT COVER normal wear and tear. It also DOES NOT COVER damage which occurs in shipment and/or failures or defects resulting from use outside the normal, and/or natural disasters, accidents, power line surges, neglect, improper installation, operation or maintenance, servicing of the Product conducted by anyone other than an authorized Red Sea service center, or failure to use or assemble the Product in accordance with any instructions provided (in the Product manual or otherwise) or the technical and/or safety standards of the country in which the Product is used. Additionally, any modification of the Product other than by an authorized Red Sea service center will invalidate this warranty. In order to affect this warranty, please contact your local service center. For your convenience, details of authorized service centers can be found on Red Sea's website. Proof of purchase will be required before

warranty performance is rendered.

The sole and exclusive remedy against Red Sea shall be for the repair or replacement of the Product as provided above. NO OTHER REMEDY (including but not limited to, incidental or consequential damages for lost profits, lost sales, or any other incidental or consequential loss) shall be available. Some jurisdictions do not allow the exclusion of incidental or consequential damage, so the above limitation may not apply to you. To the full extent allowed by applicable law, in no event shall Red Sea be liable for any loss or damage to aquatic life, and/or damage to other property and/or individuals resulting from the use of the Product or arising out of any breach of this warranty. All implied warranties are excluded to the full extent allowed by applicable law, and to the extent that they may not be excluded, are limited to the applicable warranty period set forth above. Some jurisdictions do not allow limitations on how long an implied warranty or condition lasts, so this limitation may not apply to you. The express warranties made in this warranty are exclusive and may not be altered, enlarged, or changed by any distributor, dealer, or other person, whatsoever.

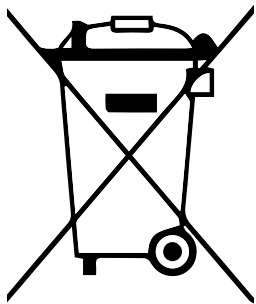
USA

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusion or limitations may not apply.

CE Declaration of Conformity:

The equipment complies with the RF Exposure Requirement 2014/53/EU, Council Recommendation on the limitation of exposure of the general public to electromagnetic fields (0-300 GHz). This equipment meets the following conformance standards: EN 300 328, EN 301 489-17.





DISPOSAL: Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary. This product must not be disposed together with the domestic waste. This product must be disposed at an authorized place for recycling of electrical and electronic appliances. By collecting and recycling waste, you help save natural resources, and make sure the product is disposed in an environmentally friendly and healthy way.

