



\*ESL integration requires ReefLink

# Vectra™

Centrifugal Pump



## Setup Guide

# Customer Support

## Congratulations on your purchase of a Vectra™ Centrifugal Pump!

**⚠** Please read this entire setup guide before using your pump. By purchasing, installing or using this product, you are acknowledging that the Limited Warranty on p.19 is part of the sale terms.

The information provided in this manual is subject to change, for the most up to date information visit [ecotechmarine.com/support](http://ecotechmarine.com/support)

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**i** Many of the steps in this guide have corresponding how-to videos. View them on the EcoTech Marine website at [ecotechmarine.com/media-gallery/video](http://ecotechmarine.com/media-gallery/video).

The EcoTech Marine Community is another tool for users to troubleshoot and learn about our products. For additional information about your Vectra Centrifugal Pump, please visit us at [community.ecotechmarine.com](http://community.ecotechmarine.com).

### UNITED STATES & CANADA

Contact EcoTech Marine directly for all warranty service and returns.  
Visit [ecotechmarine.com/support](http://ecotechmarine.com/support)

### INTERNATIONAL

Contact your local distributor directly for all warranty service and returns.  
Visit [ecotechmarine.com/find-retailers/international-distributors](http://ecotechmarine.com/find-retailers/international-distributors)



Customer Support  
1-800-785-0338  
[service@ecotechmarine.com](mailto:service@ecotechmarine.com) or  
[ecotechmarine.com/support](http://ecotechmarine.com/support)



# Inside the Box



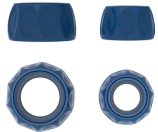
VECTRA PUMP



DRIVER



DRIVER BRACKET



QUICKCOUPLE FITTINGS



POWER SUPPLY



POWER CORD

# Maintenance

Your Vectra Centrifugal Pump is designed to operate optimally with little attention after initial setup; however, due to the harsh conditions of a saltwater aquarium and resulting buildup of algae and other organic matter, it is advisable to clean the pump to ensure the longevity of your purchase.

EcoTech recommends doing a cleaning every 6 months or as necessary.

This can be accomplished by opening the impeller housing and gently brushing the impeller and inside of impeller housing with a soft brush under running water. If there is calcium buildup, it may be necessary to soak these parts in a mild acid solution such as vinegar.

Do not use strong acids, because these may damage the components.

After cleaning, reassemble the Vectra.

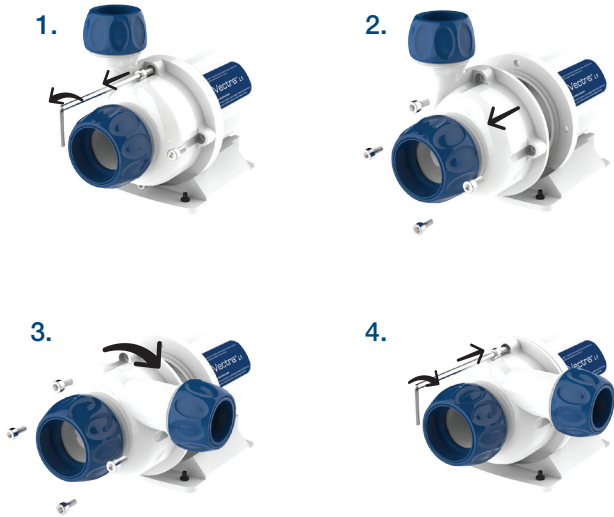


**VECTRA  
DISASSEMBLY**  
WATCH THE VIDEO:  
[ecote.ch/vectradisassemble](http://ecote.ch/vectradisassemble)

# Installing the Vectra™

## STEP 1: Adjust Vectra Head Position<sup>(optional)</sup>

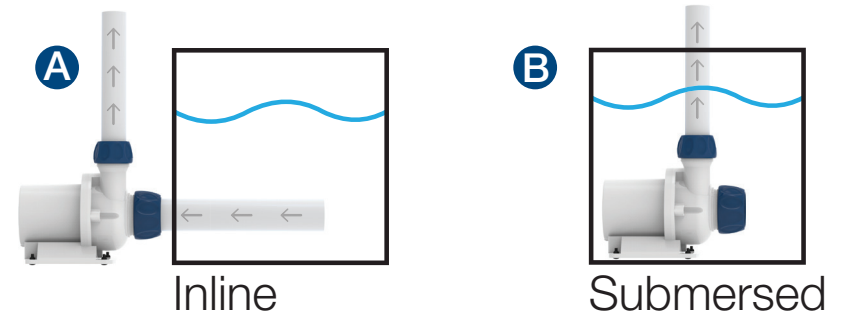
- It is possible to rotate the head of the Vectra to optimize for plumbing by removing all four hex bolts and rotating the head as shown below.



# Plumbing the Vectra™

## Inline/Submersed

- The Vectra can be used as either an inline or submersed return pump. If you choose to use the Vectra as a submersed pump you may want to use an inlet screen. (sold separately)

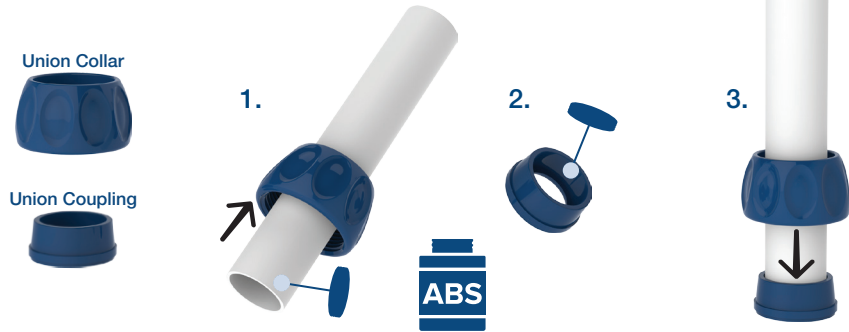


# Plumbing the Vectra™

Continued

## Using the QuickCouple Connector

- Installation of the connector requires the correct size plumbing and ABS cement.
- Slide the Union collar on to the pipe with the thread side pointing down.
- Apply ABS cement to the inside of the Union Coupling and slide on to the bottom of the pipe. Make sure to allow the ABS cement to properly dry before operation.

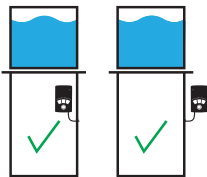


# Installing the Driver

## STEP 1: Choose Driver Location



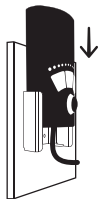
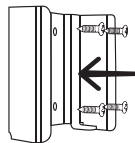
⚠ Always use a drip loop. Any water damage will NOT be covered under warranty.



## STEP 2: Mount Bracket and Install Driver<sup>(optional)</sup>



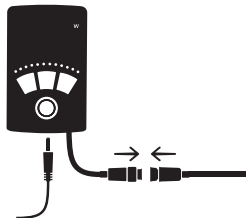
⚠ Installation requires use of a Phillips head screwdriver.



## STEP 3: Connect to Pump and Plug in Driver



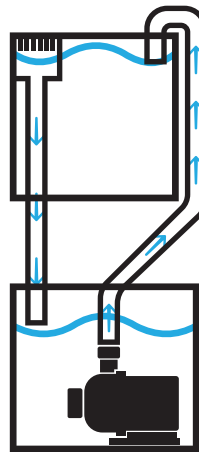
⚠ Please make sure that the connectors are properly seated and locked together.



# Configuration

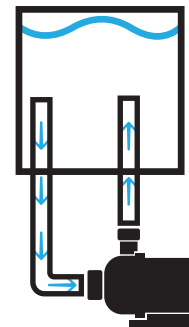
## ⚠ IMPORTANT: READ BEFORE OPERATION

The Vectra driver can be configured for two different modes of operation, Return Pump or Closed Loop. Before operation make sure the Vectra is set to the desired configuration. **The Vectra's default configuration is for use as a Return Pump.** Switching between the two configurations is detailed on the next page.



Return Pump

(Can be used submersed or inline)



Closed Loop

# The Vectra™ Driver




**USING THE Vectra DRIVER**  
 WATCH THE VIDEO:  
[ecote.ch/vectradriver](http://ecote.ch/vectradriver)

# Operation Configuration

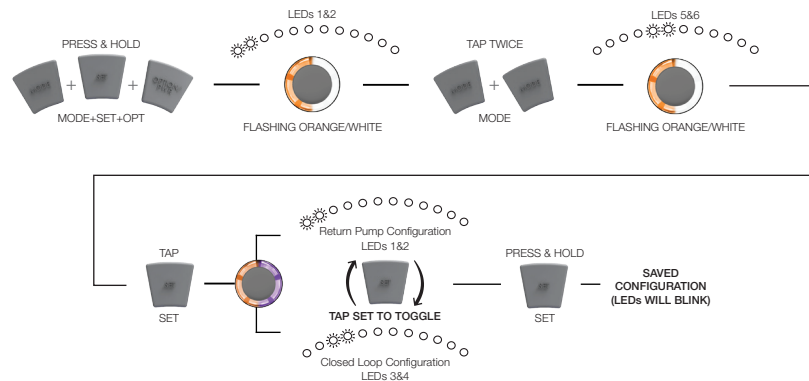
## ⚠ IMPORTANT

Before attempting to operate the pump you must select the correct operational configuration. Review the following information. Modes, settings and safety features are determined by the pump configuration set on the driver.

## ⚠ WARNING

If you are intending to use this pump as a return pump **do not** configure for closed loop operation. For more information please visit [www.ecotechmarine.com/vetraoperation](http://www.ecotechmarine.com/vetraoperation)

The default configuration of the pump out of the box is for use as a Return Pump. To switch between Return and Closed Loop, Press & Hold MODE+SET+OPT, the adjustment knob will flash Orange/White and LEDs 1&2 on the indicator bar will be lit. Next tap the MODE button twice, this will cause LEDs 5&6 on the indicator bar to light up, the adjustment knob will still be flashing orange and white. Next tap the set button once, this will cause the adjustment knob to flash orange/purple and the indicator bar will indicate what configuration the pump is in, for Return Pump Configuration LEDs 1&2 will be illuminated and for Closed Loop Configuration LEDs 3&4 will be lit brightly. At this point it is now possible to toggle between the two configurations by tapping the set button. Once the desired configuration is selected press and hold the SET button to save, this will be indicated by a flashing of the LEDs.



# Return Pump Calibration

Calibration allows you to set the max and min speed of your Vectra to match the operational capacity of your plumbing. Calibration is most easily done on the EcoSmart Live website or mobile app through the use of a ReefLink but can also be done using the driver.

 It is highly recommended to watch the calibration video before attempting to calibrate your Vectra.

Watch the calibration videos: 

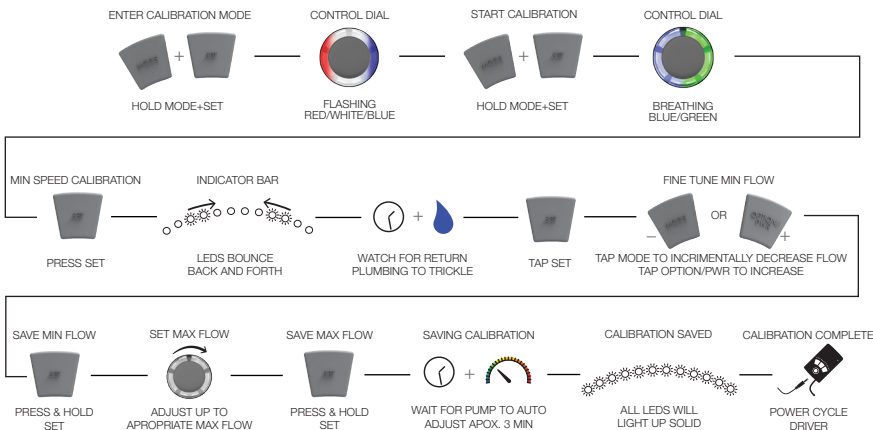
Calibration via driver: [ecote.ch/vectracalibration](http://ecote.ch/vectracalibration)

Calibration via ESL: [ecote.ch/eslvectracalibration](http://ecote.ch/eslvectracalibration)

Calibration via ESL app: [ecote.ch/mobilevectracalibration](http://ecote.ch/mobilevectracalibration)

## Calibration Using Driver

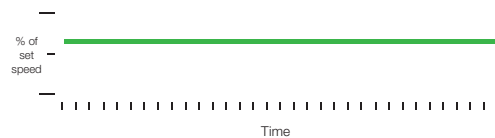
This flow chart illustrates the general actions taken to achieve calibration with the Vectra controller, for more detailed instructions please watch the video.



# Return Pump Modes

## Constant Speed Mode

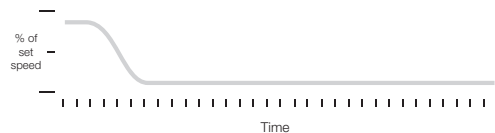
Active when solid green



Constant Speed mode is the default mode, in this mode the speed is determined by the position of the control dial.

## Feed Mode

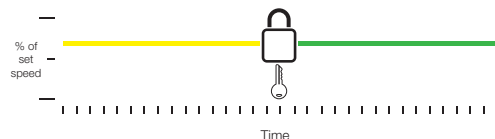
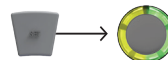
Press+Hold Mode to enable/disable



Press and hold the MODE button for 3 seconds to enter Feed Mode. The control dial will blink white and the pump will spin very slowly for 10 minutes (default setting) and then resume its set mode.

## Speed Lock

Press+Hold Set to enable/disable

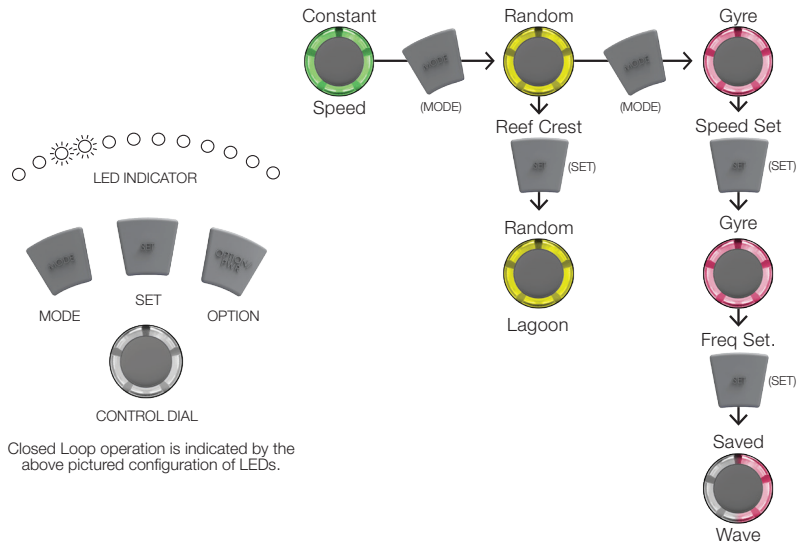


Press and hold the SET button to enable Speed Lock, once enabled the existing speed of the pump will be locked in and will not change if the control dial is moved. To make speed adjustments while Speed Lock is enabled tap SET which will allow you to use the control dial momentarily to adjust the speed. After 10 seconds Speed Lock will automatically re-engage at the newly adjusted speed.



# Closed Loop

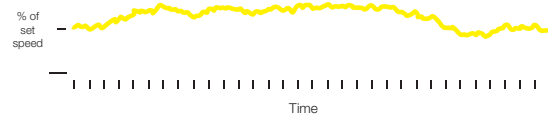
## Mode Flow Chart



Closed Loop operation is indicated by the above pictured configuration of LEDs.

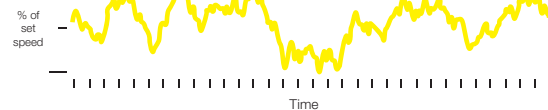
# Closed Loop Modes

## Lagoonal Random



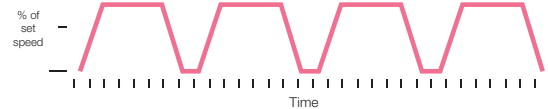
Lagoonal Random Mode simulates a low-energy lagoon environment. It is indicated by a yellow control dial and the third and fourth LEDs illuminated. The control dial is used to set the maximum speed of this mode. The speed of the pump is changed slowly to recreate the gentle currents of a lagoon.

## Reef Crest Random



Reef Crest Random Mode simulates a high-energy reef environment. It is indicated by both a yellow control dial and the first two blue LEDs illuminated. The control dial is used to set the maximum pump speed during this mode. The pump will change speed frequently and drastically to simulate crashing waves and surging tide.

## Gyre



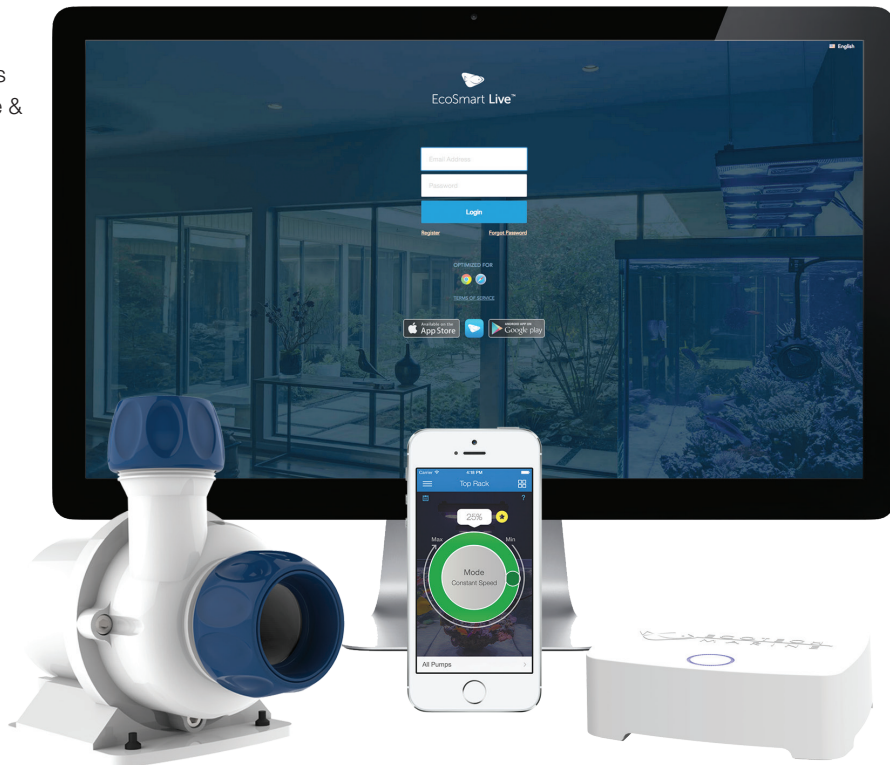
When first entering Gyre Mode, set the maximum pump speed with the control dial and press the SET button to lock it. The LEDs will begin to ramp, indicating the pulsing frequency between 2 seconds and 2 hours. Next, use the control dial to adjust the pulse frequency. The first six LEDs represent 2 seconds to 2 minutes. The seventh through 12th LEDs represent 5, 10, 20, 60, 90 and 120 minutes, respectively. Press and hold SET until the control dial flashes and then breathes pink, indicating the wave is saved.

# Vectra™ with EcoSmart Live™

The Vectra Pump has even more capabilities and control available through EcoSmart Live & ReefLink. To learn more visit: [www.ecosmartlive.com](http://www.ecosmartlive.com)



**VECTRA WITH  
ECOSMART LIVE**  
WATCH THE VIDEO:  
[ecote.ch/vectraesl](http://ecote.ch/vectraesl)



## Computers, Mobile Devices

Control your aquarium equipment any time, anywhere



## EcoSmart Live

EcoTech's powerful, cloud-based control platform.



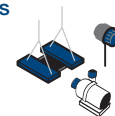
## ReefLink

The wireless bridge between your equipment and EcoSmart Live.



## Vectra, Radion Lights VorTech Pumps

Control equipment without wires or adapters.



## Unlock Additional Vectra Features

Customize modes, create schedules and much more.



# Troubleshooting

## In the event of a problem:

1. Check that the pump is plugged in and there is power.
2. Unplug the pump and inspect the impeller for damage or obstructions.
3. Reconnect the power and reset the driver (**video: [ecote.ch/resetdriver](https://www.ecotechmarine.com/resetdriver)**).
4. If the pump still does not function properly, use one of these support methods:
  - Watch our extensive collection of how-to videos.  
These videos are available at **[ecotechmarine.com/media-gallery/video](https://www.ecotechmarine.com/media-gallery/video)**
  - Visit our support community to ask questions and learn more about your Vectra Centrifugal Pump at **[community.ecotechmarine.com](https://www.ecotechmarine.com/community)**

If you are still experiencing problems, contact our industry-leading customer service at **[service@ecotechmarine.com](mailto:service@ecotechmarine.com)** or **1-800-785-0338, Option 2**.

EcoTech Marine warrants to the original purchaser only that the Vectra Centrifugal Pump will be free from defects in material and workmanship under normal use for a period of (1) year from the date of original purchase if the product is installed and used properly and consistent with the User Manual. The Vectra Centrifugal Pump consists of a wet operating unit that will be fully submerged in the aquarium and driver that must not be exposed to water at any time. EcoTech Marine's warranty shall not apply: (i) to any damaged Vectra Centrifugal Pump that has been subjected to accident, misuse, neglect, alteration, acts of God, improper handling, improper transport, improper storage, improper use or application, improper installation, improper testing or unauthorized repair, (ii) to any Vectra Centrifugal Pump where the driver has been exposed to water or (iii) to cosmetic problems or defects that result from normal wear and tear under ordinary use, and do not affect the performance or use of the product. EcoTech Marine's warranty applies only to a product that is manufactured by or for EcoTech Marine and identified by the EcoTech Marine trademark, trade name or product identification logo affixed to the product. If you notice a problem with your Vectra Centrifugal Pump, do not attempt to repair it yourself. Any attempts at self repair shall void this limited warranty. EcoTech Marine shall not be held liable for damage to any aquarium, aquarium life forms, or other personal objects due to improper use of the device. If the product develops a covered defect within the one-year period, EcoTech Marine will, at its option, either repair or replace the Vectra Centrifugal Pump without charge, provided that the Vectra Centrifugal Pump is returned during the warranty period.

The Vectra Centrifugal Pump can operate at high temperatures and produces forces within the aquarium that can cause extreme loading and fatigue. Due to this, caution must be used when installing this device on any aquarium. Because the construction of aquariums varies from each manufacturer and the operating conditions of each individual aquarist is different, there is a possibility that the Vectra Centrifugal Pump may cause damage to your aquarium. Please contact your aquarium manufacturer to determine if your aquarium is properly built and recommended for Vectra Centrifugal Pump. If you notice any damage to your aquarium, including but not limited to crazing, cracking, bending, scratching, etc, immediately discontinue the use of the Vectra Centrifugal Pump. EcoTech Marine will not be liable for any damage caused to your aquarium resulting from the use of the Vectra Centrifugal Pump.

To obtain warranty service or technical support, please contact EcoTech Marine's customer service department at 610-954-8480. You will receive instructions on how to return the product for repair or replacement. To take advantage of this Limited Warranty you will be required to supply an original point of purchase receipt.

ECOTECH MARINE DISCLAIMS ALL OTHER WARRANTIES WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED, TO THE FULLEST EXTENT ALLOWED BY APPLICABLE LAW. NO IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY SHALL APPLY EXCEPT AS REQUIRED BY APPLICABLE LAW. ECOTECH MARINE DOES NOT AUTHORIZE ANY PERSON OR BUSINESS ENTITY, INCLUDING ITS AUTHORIZED DEALERS, TO CREATE FOR IT ANY OBLIGATIONS, LIABILITIES, OR OTHER WARRANTIES IN CONNECTION WITH THIS PRODUCT.

ALL WARRANTIES ARE VOID IF THERE IS DAMAGE TO THE VECTRA CENTRIFUGAL PUMP THAT IS NOT A RESULT OF A DEFECT IN THE MATERIALS OR WORKMANSHIP. THE SOLE AND EXCLUSIVE REMEDY FOR ALL CLAIMS THAT YOU MAY HAVE ARISING OUT OF OR IN CONNECTION WITH YOUR USE OF THIS PRODUCT, WHETHER MADE OR SUFFERED BY YOU OR ANOTHER PERSON AND WHETHER BASED IN CONTRACT OR TORT, SHALL BE REPAIR OR REPLACEMENT OF THE PRODUCT. IN NO EVENT WILL ECOTECH MARINE BE LIABLE TO YOU OR ANY OTHER PARTY FOR ANY DIRECT, INDIRECT, GENERAL, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR OTHER DAMAGES ARISING OUT OF THE USE OR INABILITY OF TO USE THE PRODUCT (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF INFORMATION OR ANY OTHER PECUNIARY LOSS, DAMAGE TO YOUR AQUARIUM OR ANY AQUARIUM INHABITANTS), OR FROM ANY BREACH OF WARRANTY, EVEN IF ECOTECH MARINE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO CASE SHALL ECOTECH MARINE'S LIABILITY EXCEED THE AMOUNT YOU PAID FOR THE PRODUCT. IF YOU DISAGREE WITH THESE TERMS AND CONDITIONS DO NOT USE THE VECTRA CENTRIFUGAL PUMP.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions may not apply to you. EcoTech Marine's warranty is governed by the laws of the Commonwealth of Pennsylvania, excluding its conflict of laws principles and excluding the provisions of the United Nations Convention on Contracts for the International Sale of Goods. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

- Non-immersible parts carry an ingress protection rating of IPX0 and must not be immersed in water.
- Danger: To avoid possible electrical shock, special care should be taken since water is employed in the use of aquarium equipment.
- DO NOT attempt repairs yourself; return the appliance to the manufacturer for service or discard.
- DO NOT immerse driver in water. If the driver falls into the water, DON'T reach for it! First unplug it and then retrieve it. If electrical components of the driver get wet, unplug the appliance immediately.
- Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.
- The pump's Driver is NOT WATERPROOF; water can permanently damage them. This damage IS NOT covered under warranty. Protect these components from splashes, drips, or other contact with water.
- Do not operate any appliance if it has a damaged cord or plug, or if it is malfunctioning or if it is dropped or damaged in any manner. The power cord of this appliance cannot be replaced: If the cord is damaged, the appliance should be discarded. Never cut the cord. DO NOT DROP. The Vectra Centrifugal Pump is fragile, and a fall onto a hard surface can result in permanent damage. Damage from dropping IS NOT covered under warranty.
- Position the aquarium stand and tank to one side of a wall-mounted receptacle to prevent water from dripping onto the receptacle or plug. A "drip-loop" should be employed for each cord connecting an aquarium appliance to a receptacle. A "drip-loop" is the part of the cord below the level of the receptacle (or the connector if an extension cord), to prevent water from travelling along the cord and coming in contact with the receptacle. If the plug or receptacle does get wet, DON'T unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the appliance, then unplug and examine for presence of water in the receptacle.
- Close supervision is necessary when an appliance is used by or near children. Keep out of reach of young children.
- To avoid injury, do not contact moving or hot parts such as heaters, reflectors, lamp bulbs, and the like.
- Always unplug appliance from outlet and battery backup when not in use, before putting on or taking off parts, and before cleaning.
- Never yank cord to pull plug from outlet. Grasp the plug and pull to disconnect.
- Do not use appliance for other than intended use. The use of attachments not recommended or sold by the manufacturer may cause an unsafe condition.
- Do not install or store the appliance where it will be exposed to weather or to temperatures below freezing.
- Make sure appliance is securely installed before operating it. Read and observe all the important notices on the appliance.
- If an extension cord is necessary, a cord with a proper rating should be used. 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 will not be tripped over or pulled.
- NEVER place either half of this device near magnetically attractive surfaces or sensitive electronics.
- The motor and driver can become HOT. Be cautious around these surfaces.
- DO NOT stick fingers or anything else into the pump. NEVER run this pump dry for any period of time.

**RF Module Important Information:** The product you have purchased contains the EcoTech Marine RF Module, part number 10169. This module gives your product the ability to communicate wirelessly to other EcoTech Marine products as well as certain other manufacturer's products that were designed in compliance with the specifications for our RF Module. Use of this module in products not consented by EcoTech Marine is prohibited. This product is for indoor usage only.

Français: Cet équipement est prévu uniquement pour un usage à l'intérieur des bâtiments  
 English: This device is intended for indoor use only.

**European Union – Disposal Information:** This symbol means that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

**FCC Compliance Statement:** This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation. Any changes or modifications not expressly approved by EcoTech Marine could void the user's authority to operate the RF module, and/or the product that incorporates the RF Module. The user is cautioned to maintain a 20cm (8 inch) spacing from the product to ensure compliance with FCC regulations.

**CE Declaration of Conformity:** The equipment complies with the RF exposure Requirement 1999/5/EEC, 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

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This device contains: EcoTech Marine's RF Module  
 Part Number: 10169 FCC ID: VKB271829 IC: 7349A-271829



The Vectra Pump can be used in the following countries:

AT	BG	BE	CY	CZ	DK
EE	FI	FR	DE	GR	HU
IE	IT	LV	LT	LU	MT
NL	PL	PT	RO	SK	SL
ES	SE	GB	IS	LI	NO
CH					