



Assembly Instructions and Warranty Information



The mission of Martin Ecosystems is to provide global environmental solutions that improve water quality, protect coast lines, and restore habitats, while remaining committed to advancing ecological



Dear Valued Customer,

We would like to take a moment to thank you for your recent purchase from Martin Ecosystems. We are confident that you will be pleased with the results.

Please feel free to contact us at any time if you have any questions or need assistance.

As our products continue to expand and make their way around the globe, we enjoy seeing photos of them in their new environments. We would greatly appreciate any photos that you want to share. Please send them to info@martinecosystems.com.

Thank you again!

Sincerely,
Martin Ecosystems

P.S. Don't forget to bookmark our website and sign up for our newsletter at www.MartinEcosystems.com to learn more about our products in the press, new projects, and on-going research.



BioHaven® Floating Island Assembly, Planting and Launching Instructions



Items You Will Need

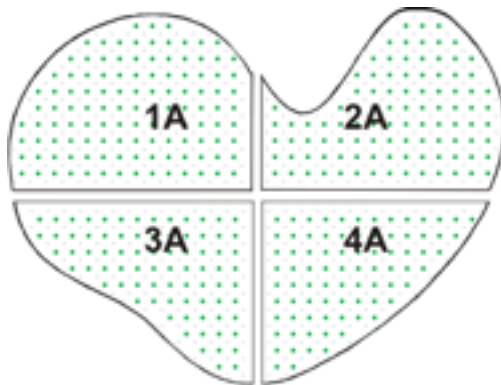
- Hammer or Mallet
- Cable Cutter
- Socket Driver or Nut Driver
- Metal rod or cable puller
- Channel Locks

Parts Provided

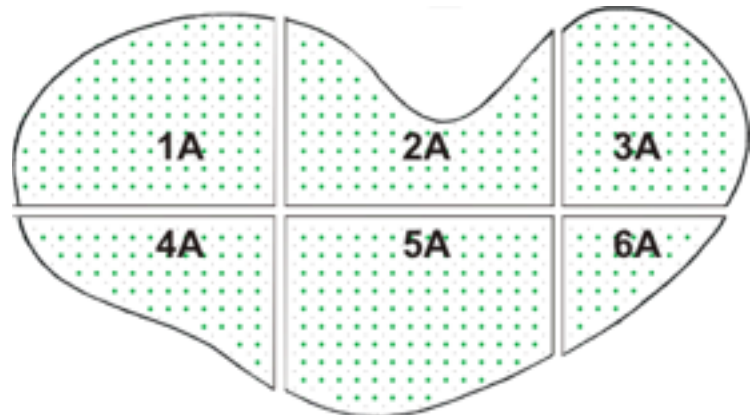
	Name	Part	Qty for 112 sq.ft.	Qty for 225 sq.ft.	Qty for 300 sq.ft.
A	Island Modules		2	4	6
B	PVC Collar		2	8	13
C	Cable with Washer & Sleeves		2	8	10
D	Trex Plates		4	16	20
E	Washers		4	8	10
F	Buttons		2	8	10
G	Cable Clamp		2	8	10
H	Thimble		2	8	10

Assembly

Step One: Locate the large numbers on the top of each island module and assemble according to diagram of specific island size purchased below. Leave space between the island pieces equal to the length of PVC collars



225 square foot Island



300 square foot Island

NOTE: If you have ordered more than one island, all of the modules for the first island will be marked with an A, the second set of island modules will be marked with a B.....and so on.

1st Island	2nd Island
1A 2A	1B 2B

Step Two: Connect all island modules together. On (1A) module locate on the periphery all left to right running internal PVC pipes and slide the PVC collars (B) partially over the internal pipe. Slide gently (2A) module towards module (1A) ensuring alignment of internal pipes and collars (B). Ensure collars (B) cover both the left and right side of PVC pipes. Do not leave a gap between the two module sections. (NOTE: If the island has 6 modules sections continue in the same way as above with the next upper 3rd module.)

Next assemble all lower sections, repeating the process as described above with all the horizontal running pipes of the lower sections (3A & 4A). Assemble the joined top section with the joined lower section repeating the above process. Do not leave a gap between any of the island module sections.

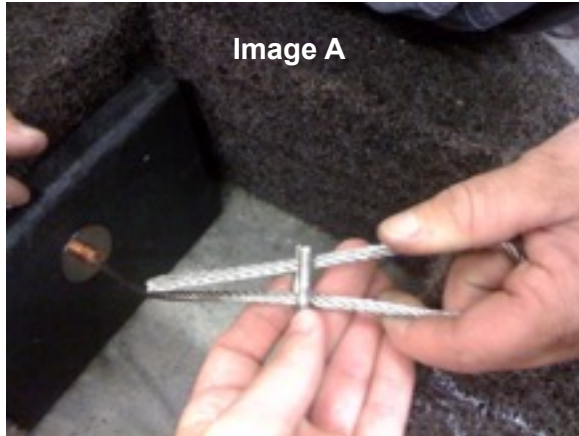
Step Three: Locate a numbered narrow matrix removable plug and the identical numbered larger square matrix removable plug. Match the corresponding numbered cable (C) to the corresponding numbered matrix removable plugs.

Step Four: Remove the small and large matrix plug with identical numbers. First, thread the cable (with identical number as the two matrix openings) through a washer (E) and the hole of one Trex Plate (D). Then in the small matrix opening thread the cable through the PVC pipe. Continue threading the cable through the PVC pipe until you are without any slack and are able to insert the trex plate into the small matrix opening. The cable should pass through the PVC from one end of the island to the other into the large matrix plug.

Step Five: After feeding the cable through to the large matrix opening on the other side, you should find the end of the cable located inside the PVC pipe. Before pulling on this end of the cable, place a trex plate inside the large matrix opening flush against the PVC pipe. Using a small hammer or mallet tap the trex plate to force the modules closer together. **(NOTE: Do not use a hammer directly on the PVC pipe, as this may cause the pipe to crack).**

Step Six: Pass the end of the cable through the trex plate hole. The cable may become barbed while being pulled through the PVC pipe. If this is the case, cut the barbed end, trying not to cut more than 2-3 inches. Cutting the barbed end will make it easier to pass the cable through the washer (E), button (F), and cable clamp (G).

Step Seven: Complete the unmade cable end by threading one washer (E), one button (F) onto the cable. Next, thread the cable clamp (G) onto the cable. You will then create a loop with the cable by passing the cable through one side of the cable clamp and then back through the other side. (**Image A**) Tighten the cable clamp using the socket or nut driver (**Image B**).



Step Eight: This Step Requires Two People. Once the cable clamp is tight, push the button and the washer tightly against the trex plate. One person should pull forcefully on the cable clamp loop using a cable puller or metal rod while the other uses the channel lock pliers or cable crimper to crimp the button firmly against the trex plate. (**Image C**) This will pull and tighten the island modules together.



Image C

Step Nine: Loosen the cable clamp then slide it as close as possible to the crimped button. Using the socket driver re-tighten the cable clamp.

Step Ten: Re-insert the small and large matrix plugs back into the hole.

Step Eleven: Repeat steps 3-6 using the remaining cables supplied.

Anchor Points

Island anchor points are based on island size. Each anchor point requires one thimble (H) to prevent rubbing against the cable loop.

Insert the thimble into the cable loop created in **Step Seven**. (**Image B**) Loosen the cable clamp then slide it as close as possible to the crimped button. Using the socket driver re-tighten the cable clamp. (**Image D**) Re-Insert the large matrix plug back into the hole.



Image D

Planting and Launching Instructions



You will need the following:

- Visqueen
- Anchor Rope or Cable
- Anchoring Device (1.5 #/sq.ft. of island)
- 1/2 Peat Moss/ 1/2 Potting Soil Mixture
- Plants
- Sod Pins and Landscape Flags (if planting sod)

Step One: Place a piece of visqueen (approximately 1 1/2 times the size of the island) on the ground near the water's edge. Allow the end of the visqueen to drape into the water.

Step Two: Attach one end of the anchor rope or cable to each anchor point and the other end to the anchoring device.

Step Three: Begin filling the planting holes with peat/soil mixture. Fill the holes halfway.

Step Four: Place the plants in each planting hole making sure that the bottom of the roots are pointing downward. Do not allow the roots to point upward in the hole.

Step Five: After planting all desired holes, cover the entire top side of the island with a thin layer of peat/soil mixture. Layer should be approximately 1" thick.

Step Six: Once the island is planted and covered with soil mixture, place all anchors on top of the island. Slowly slide the island into the water, being careful not to allow the island to go under water. The island going under water will cause the soil mixture to be lost in the water and require it to be replaced.

Step Seven: Using a hose or pail thoroughly saturate the island and vegetation with water.

Step Eight: Float island to desired location and drop the anchor or anchors in the water.

Note regarding bare root plugs: If you are using bare root plugs, use potting soil instead. Peat moss alone will burn the roots of the plants.

If Planting Sod

Step One: When planting an island with sod, spread a light layer of soil mixture (approximately 1/2" thick) across the top of the island.

Step Two: Remove as much of the mud as possible from the sod roots.

Step Three: Lay sod on the island, cutting to fit, until the entire top is covered. Allow the sod to overlap edges so that the sod covers half of the side of the islands. Sod should be even with the waterline when launched.

Step Four: Pin the sod into position with landscape pins - about 2 pins per square foot.

NOTE on SOD: If planting plants along with sod, place landscape flags in the sod above the planting holes so that the holes can be located for planting the plants. Remove the landscape flags one at a time as you cut through the sod to expose the hole.



**Newly planted
BioHaven® Floating
Island waiting to be
installed**



**Fully planted and
installed
BioHaven® Floating
Island**



**Mature
BioHaven® Floating
Island**

Frequently Asked Questions

What kinds of plants can be used to vegetate a BioHaven® Floating Island?

Aquatic and terrestrial vegetation can be used to vegetate BioHaven® Floating Technology. Plant selection should be those native to the region where the BioHaven® will be launched. When the technology is being used as a habitat for birds, fish or other wildlife, plants which attract the targeted species, while also meeting their environmental needs are used. Annual plants, including fruits and vegetables, have also been successfully grown on the BioHaven® Island.

What time of year is best for launching a BioHaven® Floating Island?

BioHavens® can be launched any time of year. Plant species, planting zone, temperature, and rain tolerance should all be considered when deciding the time of year to install your product.

How much weight can a BioHaven® Floating Island support?

The standard BioHaven® Floating Island is manufactured with 9lb. of buoyancy per square foot. Standard islands can only support small animals and plant life. They can also be customized and/or engineered to support increased weight, by adding additional layers of matrix and foam.

Does the BioHaven® Floating Island have to be maintained?

This depends on the application or desired look that you are trying to achieve. If you desire a manicured look, BioHavens® will require the same type of maintenance as your flower beds. If you are looking for a more natural, less manicured look, little to no maintenance is required as the planted vegetation will grow wild and voluntary vegetation will establish and grow. In treatment applications, such as storm water treatment or wastewater treatment, BioHavens® can be maintained by removing weeds and volunteer species along with pruning back the plants. This is recommended twice annually.

How are the BioHaven® Floating Islands secured in place?

Martin Ecosystems recommends using cement anchors to secure your islands in place.

Does the BioHaven® Floating Island only work in freshwater lakes?

No. Our products can be launched into virtually any waterway, including both freshwater and marine settings. If you are installing in a marine environment, be sure to select the correct vegetation for that environment. Islands have been successfully deployed in saltwater marine environments along Coastal Louisiana.

What is the difference between conventional wetlands and BioHaven® Floating Islands?

BioHaven® Floating Islands clean water faster than conventional wetlands because their design creates a more concentrated environment. Our floating treatment wetlands are scalable, customizable, and more cost-effective than conventional wetlands. They can also be launched in almost any water depth and can efficiently operate in virtually any waterway.

What is the lifespan or longevity of the BioHaven® Floating Island?

The oldest BioHaven® structure is approximately 11 years old and is currently operating properly. The materials comprising the BioHaven® Floating Technology have been selected to be inert, durable, and nontoxic. Considering product knowledge and visual observations, the expected operational lifetime of BioHaven® Floating Technology that have been designed and installed with consideration of site-specific environmental conditions will be more than ten years.

1. Seller's Warranty.

This is to certify that Martin Ecosystems ("Seller") warrants, to the first purchaser only ("Purchaser"), the described BioHaven® Floating Island Technology (hereinafter "Island") manufactured by Seller to be free from defects in materials and workmanship, when properly maintained, and under normal use and service, when such Island is installed, launched, used, and maintained in accordance with the provided instructions. By installing or using the Island in accordance with the provided instructions, the user accepts all terms described herein. This Warranty shall be applicable to the original Purchaser of the Island. It is not transferrable or assignable. Other provisions of this agreement apply to any person who may assert claims against the Seller.

2. Purchaser's Remedy.

Purchaser's sole and exclusive remedy under this warranty shall be limited to the repair or replacement, at Seller's option and expense, of any defective part of any Island. In no event will Seller be liable for more than the amount of Purchaser's purchase price, not to exceed the current list price of the product excluding tax, shipping, and handling charges.

3. Duration.

This warranty will expire twelve (12) months from date of delivery to the Purchaser.

4. Purchaser's Duties.

(a) Notice of defect. Written notice and an explanation of the circumstances of any claim that the Island has proved defective in material or workmanship shall be given by Purchaser to Seller within 10 days of detection of a claimed defect.

(b) Notice of breach. The Purchaser shall give written notice to the Seller of any alleged refusal or failure of the Seller to repair or replace as promised by this warranty not later than fifteen (10) days after the Purchaser learns of such alleged failure or refusal.

5. Disclaimer.

THE EXPRESS WARRANTY HEREIN IS EXCLUSIVE AND IS GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE; AND ANY OBLIGATION, LIABILITY, RIGHT, CLAIM, OR REMEDY IN CONTRACT OR TORT, WHETHER OR NOT ARISING FROM SELLER'S NEGLIGENCE, ACTUAL OR IMPUTED. THE REMEDIES OF THE BUYER SHALL BE LIMITED TO THOSE PROVIDED HEREIN TO THE EXCLUSION OF ANY OTHER REMEDIES INCLUDING, WITHOUT LIMITATION, INCIDENTAL OR CONSEQUENTIAL DAMAGES. NO AGREEMENT VARYING OR EXTENDING THE FOREGOING WARRANTIES, REMEDIES, OR THIS LIMITATION WILL BE BINDING UPON SELLER UNLESS IN WRITING, SIGNED BY A DULY AUTHORIZED OFFICER OF SELLER.

6. Exclusions.

The warranty and obligations stated here shall not apply to:

- (a) Loss or theft of Island.
- (b) Any damage caused by misuse, abuse, unauthorized modification, or improper storage.
- (c) Any damage caused by natural hazards, including but not limited to, lightning, tropical storm force winds or greater, or natural disasters.
- (d) Any damage or material loss due to animals and/or wildlife.
- (e) Conditions resulting from exposure to negative buoyancy or exceeding buoyancy specifications of the Island.
- (f) Products purchased "as-is".
- (g) Any Island that has been removed from the USA or Canada.
- (h) Items which are not defective but must be replaced during the warranty period as a result of fair wear and tear.
- (i) Plants or any other perishable or consumable items.

7. Exclusion of Lost Profits and Other Consequential or Incidental Damages.

Seller will have no liability for any lost profits, lost savings, damage to other equipment or property, personal injury and incidental or consequential damages alleged to have been caused by any defect in the Island, arising from the use of or inability to the Island, or any failure of the Seller to meet any obligation under this agreement, including the obligation to repair and replace set forth in paragraph 2 above.

8. Limitations of Actions.

No action for breach of this warranty shall be commenced more than one year after the accrual of the cause of action.

9. Merger.

This written warranty is the complete, final and exclusive agreement of the parties with respect to the quality or performance of the goods and any and all warranties and representations.

10. No Oral Modifications or Waivers.

No modification of this warranty or waiver of its terms shall be binding on either party unless approved in writing by an authorized official of the party.

11. Governing Law.

This warranty and the rights and duties of the parties under this warranty shall be governed by the law of Louisiana, the state of the Seller's principal place of business.

12. Construction of this Agreement

This Agreement shall be interpreted in accordance with the plain English meaning of its terms.

Nature's Best Friend

6265 Benefit Drive Suite B, Baton Rouge, LA 70809 // (225) 292-6750
www.MartinEcosystems.com