

Reactor 85 / 300 / 650

E-MANUAL

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THREE (3) YEAR LIMITED WARRANTY

For the BioOX Reactor product line only

IMPORTANT: BY USING YOUR BIOOX REACTOR UNIT YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THE BIOOX THREE (3) YEAR LIMITED WARRANTY (“WARRANTY”) AS SET OUT BELOW. DO NOT USE YOUR PRODUCT UNTIL YOU HAVE READ THE TERMS OF THE WARRANTY. IF YOU DO NOT AGREE TO THE TERMS OF THE WARRANTY, DO NOT USE THE PRODUCT AND RETURN IT WITHIN THE RETURN PERIOD STATED IN BIOOX'S RETURN POLICY TO THE AUTHORIZED DISTRIBUTOR WHERE YOU PURCHASED IT FOR A REFUND.

HOW CONSUMER LAW RELATES TO THIS WARRANTY

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE (OR BY COUNTRY OR PROVINCE). OTHER THAN AS PERMITTED BY LAW, BIOOX DOES NOT EXCLUDE, LIMIT OR SUSPEND OTHER RIGHTS YOU MAY HAVE, INCLUDING THOSE THAT MAY ARISE FROM THE NONCONFORMITY OF A SALES CONTRACT. FOR A FULL UNDERSTANDING OF YOUR RIGHTS YOU SHOULD CONSULT THE LAWS OF YOUR COUNTRY, PROVINCE OR STATE.

WARRANTY LIMITATIONS SUBJECT TO CONSUMER LAW

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND THE REMEDIES SET FORTH ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL, WRITTEN, STATUTORY, EXPRESS OR IMPLIED. BIOOX DISCLAIMS ALL STATUTORY AND IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS, TO THE EXTENT PERMITTED BY LAW. IN SO FAR AS SUCH WARRANTIES CANNOT BE DISCLAIMED, BIOOX LIMITS THE DURATION AND REMEDIES OF SUCH WARRANTIES TO THE DURATION OF THIS EXPRESS WARRANTY AND, AT BIOOX'S OPTION, THE REPAIR OR REPLACEMENT SERVICES DESCRIBED BELOW. SOME STATES (COUNTRIES AND PROVINCES) DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY (OR CONDITION) MAY LAST, SO THE LIMITATION DESCRIBED ABOVE MAY NOT APPLY TO YOU.

WHAT IS COVERED BY THIS WARRANTY?

Air & Water Solutions Inc. of P.O. Box 627, Nutley, New Jersey, U.S.A. 07110 (“Air & Water Solutions”) warrants the BioOx-branded Reactor hardware product and the BioOx branded accessories contained in the original packaging against defects in materials and workmanship when used normally in accordance with BioOx's published guidelines for a period of THREE (3) YEARS FOR THE REACTOR HOUSING AND 90-DAYS FOR THE FANS AND PUMPS from the date of original retail purchase by the end-user purchaser (“Warranty Period”). BioOx's published guidelines include but are not limited to information contained in technical specifications, user manuals and service communications.

WHAT IS NOT COVERED BY THIS WARRANTY?

This Warranty does not apply: (a) to consumable parts, such as batteries or protective coatings that are designed to diminish over time, unless failure has occurred due to a defect in materials or workmanship; (b) to cosmetic damage, including but not limited to scratches, dents and broken plastic on plugs or ports unless failure has occurred due to a defect in materials or workmanship; (c) to damage caused by use with a third party component or product that does not meet BioOx Product's specifications (BioOx Product specifications are available at www.bioox.us under the technical specifications for each product and also available from our distributors); (d) to damage caused by accident, abuse, misuse, fire, liquid contact, improper maintenance, earthquake or other external cause; (e) to damage caused by operating the BioOx Product outside BioOx's published guidelines; (f) to damage caused by service (including upgrades and expansions) performed by anyone who is not a representative of BioOx or a BioOx Authorized Service Provider ("BASP"); (g) to a BioOx Product that has been modified to alter functionality or capability without the written permission of BioOx; (h) to defects caused by normal wear and tear or otherwise due to the normal aging of the BioOx Product; ; or (i) if BioOx receives information from relevant public authorities that the product has been stolen, and you cannot prove in any way that you are the authorized user of the product (eg. by presenting proof of purchase).

YOUR RESPONSIBILITIES

YOU SHOULD PERFORM ROUTINE MAINTENANCE TO THE BIOOX REACTOR AS INSTRUCTED BY OUR PRODUCT MANUAL. LACK OF MAINTENANCE CAN RESULT IN THE PREMATURE WEAR AND FAILURE OF YOUR UNIT AND MAY RENDER THIS WARRANTY NULL AND VOID. Before receiving warranty service, BioOx or its agents may require that you furnish proof of purchase details, respond to questions designed to assist with diagnosing potential issues and follow BioOx's procedures for obtaining warranty service. Before submitting your BioOx Product for warranty service please contact us at (301) 246-0151.

HOW DO I OBTAIN WARRANTY SERVICE?

Please contact Air & Water Solutions at info@bioox.us or by calling 1 (301) 246-0151 for warranty service.

LIMITATION OF LIABILITY

EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, BIOOX IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE; LOSS OF REVENUE; LOSS OF ACTUAL OR ANTICIPATED PROFITS (INCLUDING LOSS OF PROFITS ON CONTRACTS); LOSS OF THE USE OF MONEY; LOSS OF ANTICIPATED SAVINGS; LOSS OF BUSINESS; LOSS OF OPPORTUNITY; LOSS OF GOODWILL; LOSS OF REPUTATION; LOSS OF, DAMAGE TO, COMPROMISE OR CORRUPTION OF DATA; OR ANY INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE HOWSOEVER CAUSED INCLUDING THE REPLACEMENT OF EQUIPMENT AND PROPERTY, ANY COSTS OF RECOVERING, PROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH THE BIOOX PRODUCT OR ANY FAILURE TO MAINTAIN THE CONFIDENTIALITY OF INFORMATION STORED ON THE BIOOX PRODUCT. THE FOREGOING LIMITATION SHALL NOT APPLY TO DEATH OR PERSONAL INJURY CLAIMS, OR ANY STATUTORY LIABILITY FOR INTENTIONAL AND GROSS NEGLIGENT ACTS AND/OR OMISSIONS. BIOOX DISCLAIMS ANY REPRESENTATION THAT IT WILL BE ABLE TO REPAIR ANY BIOOX PRODUCT UNDER THIS WARRANTY OR REPLACE THE BIOOX PRODUCT WITHOUT RISK TO OR LOSS OF INFORMATION STORED IN THE BIOOX PRODUCT. SOME STATES (COUNTRIES AND PROVINCES) DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

IMPORTANT SAFEGUARDS

Please read safety guidelines before operating the unit.

1. Do not operate in explosive atmospheres. Fan motor is not explosion-proof.
2. Do not operate if pump or fan cords are damaged.
3. Do not allow children to climb on unit. Anchor unit to wall or support if necessary.
4. To protect against shock, plug fan electrical cord into ground fault circuit interrupter (available at hardware stores).
5. To prevent accidental knockdown, keep away from general foot traffic, children, and pets. Secure to a solid support if necessary.
6. Do not tip. Operating while unbalanced or while lying on side can result in electrical shock.
7. Do not stick fingers or objects through fan or remove top fan assembly when fan is moving or plugged in. Moving fan may cause injury.
8. Do not place objects on top of unit.
9. Do not move the unit unless the electric cords for the fan and the pump have been disconnected and water has been emptied from the water reservoir (tank).
10. Do not operate unit on wet surface. Never handle the pump or fan motor plugs and cords with wet hands or when standing on wet surface.
11. During operation, maintain the water level of the tank. Water level should not be allowed to go below water pump level. If there is not enough water to circulate in the reservoir, the pump may be damaged and the cleaning efficiency reduced. Maintain water level between maximum and minimum lines.
12. Do not stop water circulation by the pump. Stagnant water can cause unpleasant smell and a harbor for insects. When not in use, drain water and allow unit to dry for storage. Just add water and BioOx® Natural Media to start up when ready.
13. Do not intentionally introduce any form of pollutant directly into unit, i.e. smoke, hazardous or non-hazardous liquid, solvents, solids, sprays, etc. to test the unit's capabilities. The only substances that can be added directly to the unit are: water and BioOx Natural Media.
14. Wash hands with soap and water after handling BioOx Natural Media.



WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT DISMANTLE FAN OR PUMP SYSTEM.

NO USER-SERVICEABLE PARTS INSIDE.

REPAIRS SHOULD BE DONE BY AUTHORIZED SERVICE PERSONNEL ONLY.

FINDING A PROPER LOCATION

To find a proper place to set up your BioOx-85 unit, it should be:

1. In a good location to draw in major air pollutants;
2. Away from frequent movements of people, especially children or pets
3. Away from dangerous or flammable sources.

The fan cord should be plugged into a ground fault circuit interrupter (available at hardware stores) and shipped with new units.

If your unit has an automatic watering option: Automatic watering attachment should be connected to a water source by a licensed plumber. Connection and attachment should be inspected periodically to assure proper working order and to avoid possible overflow, leaks, spills or floods.

GENERAL INFORMATION

The BioOx-85 is an air cleaning unit, which biologically oxidizes organic chemicals and contaminants and removes dust and other particles from the air. This unit is specially designed for the removal of indoor air pollutants. The BioOx-85 has been pre-loaded with BioOx Natural Media (biomass) which are able to eliminate a broad spectrum of organic pollutants as their carbon source (oxidation).

For the unit to operate efficiently, it must be provided with water and oxygen for biological oxidation to take place. Oxygen is sufficiently supplied from the surrounding air drawn in to the unit. Water is pumped from the reservoir and distributed over the top of the cartridge where it continually washes the cartridge element. While the unit is operating, the amount of water is gradually reduced. Because of this loss of water, **you must add water to the unit** periodically.

TECHNICAL SPECIFICATIONS

Model No.	Reactor 85
Nominal contaminant destruction, lbs/day	10
Area of influence* square feet	600
Continuous Operation	YES
Air flow ft ³ /min	100
Water flow (GPM)	5 gpm
Fan speed (RPM)	1750 rpm
Container Vol (G)	10 G
Rating	AC 110V 60HZ
Power consumption	24 Watts
Dimensions (D x H)	13" (D) x 25" (H)
Noise levels	34 db
Dry Weight	16 lbs

- External dimensions are approximate.
- In extremely high-altitudes or severely cold areas, the product may not perform as specified. Avoid using product in such areas or in other extreme conditions.
- This product is not suitable for use in countries or regions with different power supply voltages or frequencies.

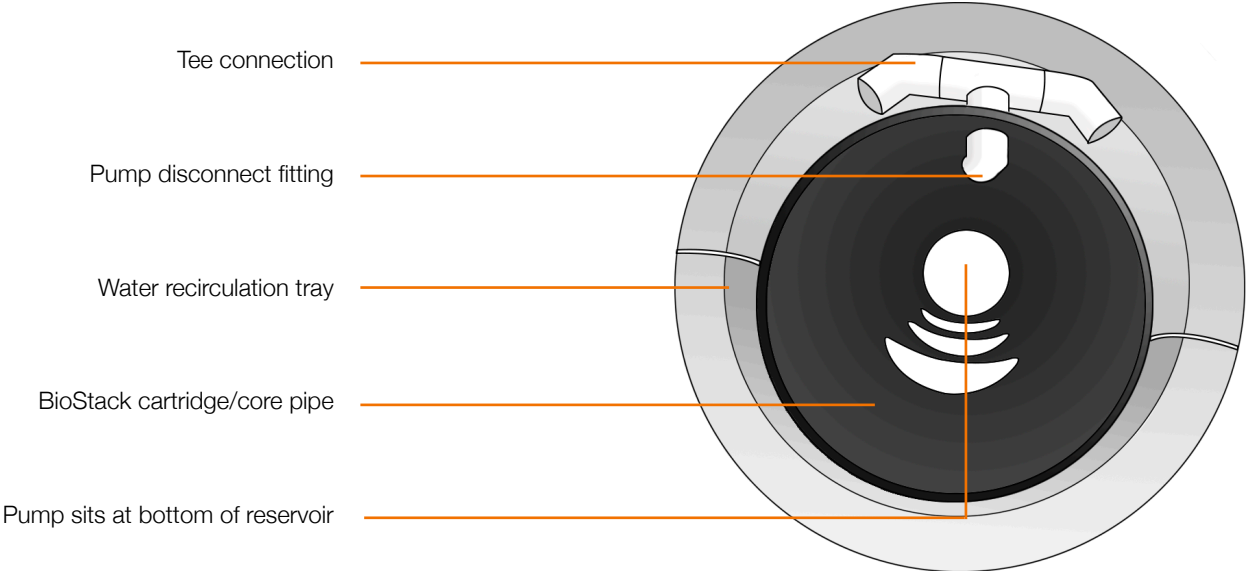
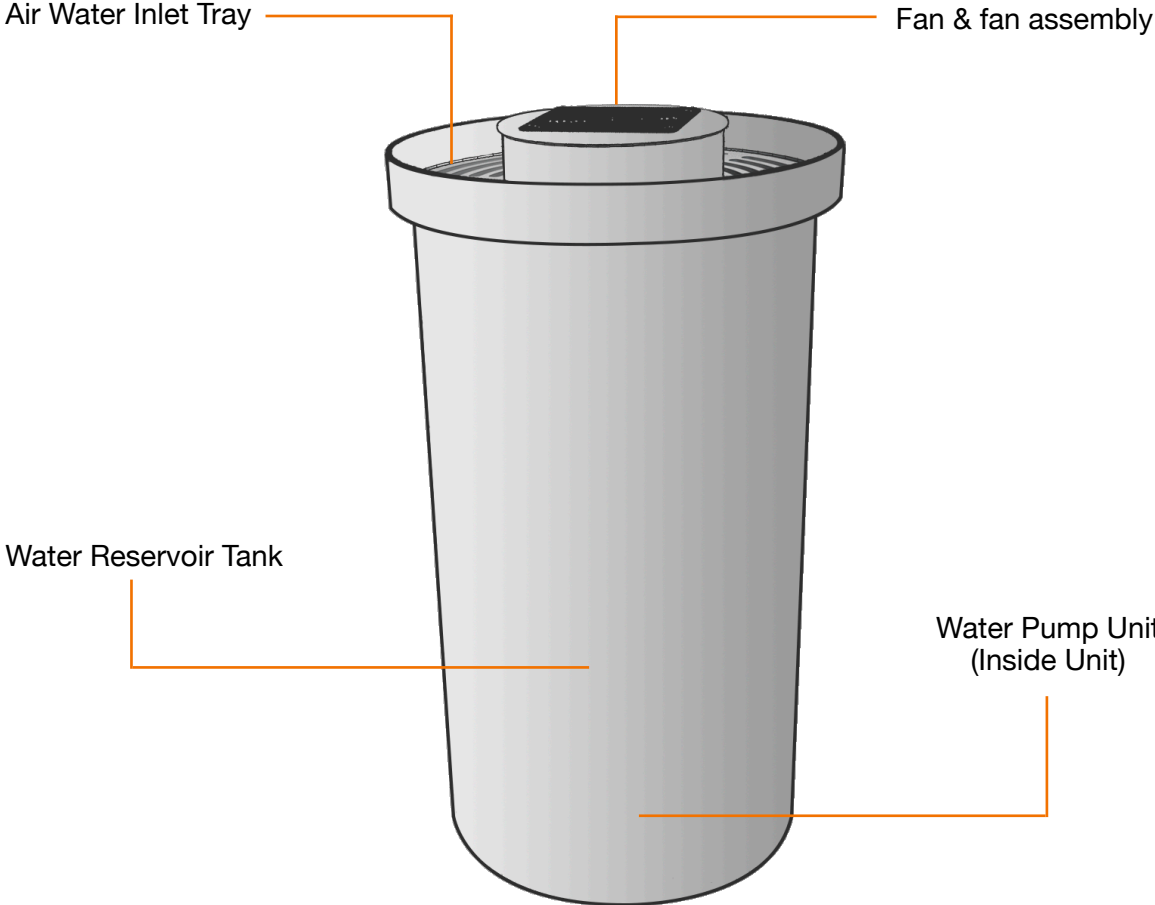
Model No.	Reactor 300
Nominal contaminant destruction, lbs/day	20
Area of influence* square feet	1500
Continuous Operation	YES
Air flow ft ³ /min	239
Water flow (GPM)	6 gpm
Fan speed (RPM)	2950 rpm
Container Vol (G)	40 G
Rating	AC 110V 60HZ
Power consumption	115 Watts
Dimensions (D x H)	21" (D) x 45" (H)
Noise levels	55 db
Dry Weight	38 lbs

- External dimensions are approximate.
- In extremely high-altitudes or severely cold areas, the product may not perform as specified. Avoid using product in such areas or in other extreme conditions.
- This product is not suitable for use in countries or regions with different power supply voltages or frequencies.

Model No.	Reactor 650
Nominal contaminant destruction, lbs/day	40
Area of influence* square feet	3000
Continuous Operation	YES
Air flow ft ³ /min	665
Water flow (GPM)	8 gpm
Fan speed (RPM)	1600 rpm
Container Vol (G)	90 G
Rating	AC 110V 60HZ
Power consumption	115 Watts
Dimensions (D x H)	29" (D) x 54" (H)
Noise levels	52 db
Dry Weight	77 lbs

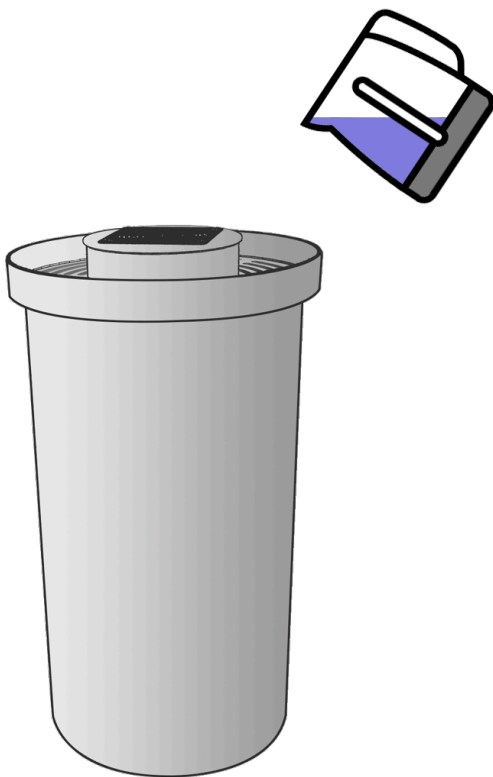
- External dimensions are approximate.
- In extremely high-altitudes or severely cold areas, the product may not perform as specified. Avoid using product in such areas or in other extreme conditions.
- This product is not suitable for use in countries or regions with different power supply voltages or frequencies.

UNIT OVERVIEW & PARTS NAMES

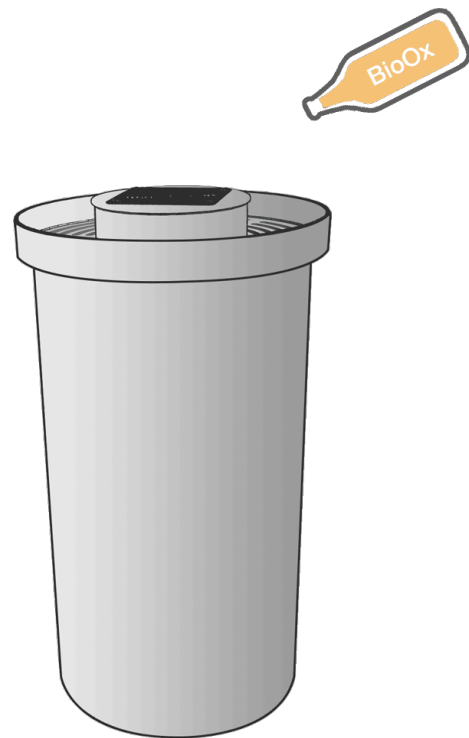


OPERATING PROCEDURE

1. Add water and BioOx® Natural Media to the BioOx-85 at the Air/Water Inlet. (See photographs below). Fill to Maximum Water Line. Plug the water pump cord into your electric outlet (120 volts). Make sure water is circulating by listening for the sound of water flowing or seeing the water flow through the Water/Air Inlet cover. (The water level should drop slightly as water pumps up to the water box).
2. Plug the fan cord into the electric outlet (120 volts). Place hand near fan, making sure air is flowing out. The BioOx-85 should now be operating automatically.
3. Maintain the water level above the water pump and between the Minimum and Maximum Water Level Lines at all times.
4. Check water level daily. Add water periodically to maintain water level . Allowing the water level to get too low will damage the pump.
5. Add BioOx® Natural Media regularly. We recommend adding 4 oz. every month, depending on your particular air quality. During peak periods, add more BioOx Media or add more often (every week).



Add water at air/water inlet



Add BioOx Media at air/water inlet

DOSAGE SCHEDULE

*Minimum Weekly Dosages (Recommended)

Model	BioOx Media Initial Dosage	BioOx Media Weekly Dosage
Reactor 85	250ml	+60 ml / week
Reactor 300	600 ml	+120 ml / week
Reactor 650	1250 ml	+240 ml / week
Reactor 5000	3000 ml	+480 ml / week

*Minimum Monthly Dosages

Model	BioOx Media Initial Dosage	BioOx Media Monthly Dosage
Reactor 85	250ml	+250 ml / month
Reactor 300	600 ml	+500 ml / month
Reactor 650	1250 ml	+1000 ml / month
Reactor 5000	3000 ml	+2000 ml / month

*This chart represents the **minimum dosage requirement** in order to filter your air effectively. Do not hesitate to add more for your specific industry or to perform a more aggressive air purification cycle.

ADDING BIOOX NATURAL MEDIA

Add BioOx Natural Media to your unit according to the dosage schedule above. We recommend keeping a log of the dates you add BioOx Media to your unit. Use only BioOx® Natural Media. To order BioOx Media, call Air & Water Solutions at (301) 246-0151 or email us at info@bioox.us.

To add BioOx® Natural Media to your Reactor unit:

1. Shake bottle containing BioOx® Natural Media well.
2. BioOx can be added directly to unit or can be added to water before pouring into unit.
3. Pour BioOx Media into unit's air/water inlet. Be sure not to overflow reservoir when adding with water.
4. Be sure pump and fan are running.

MAINTAINING YOUR UNIT

(ONLINE MAINTENANCE VIDEO AVAILABLE AT: <https://bit.ly/2HkhhDZ>)

Depending on your particular indoor air quality, we recommend cleaning your BioOx Clean Air System every 2-6 months. (In heavily contaminated areas, clean every month). Accumulation of sludge and particles in the reservoir can cause damage to the pump and lower the unit's cleaning ability. Clogged openings in the water box can cause a water overflow.

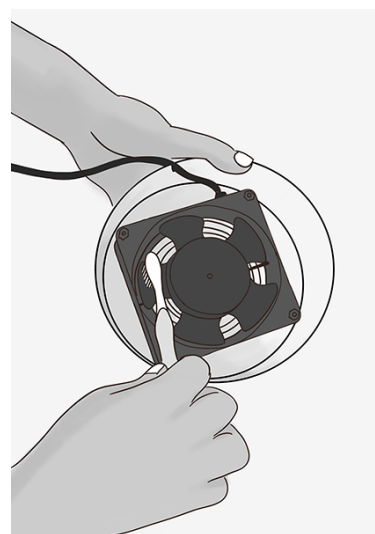
To maintain your unit: Check water level daily. Add BioOx Natural Media monthly. Clean regularly.

To clean your unit:

1. Unplug the unit: both fan and pump from electrical power.



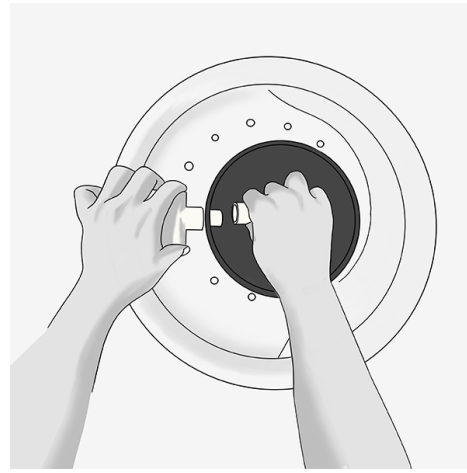
2. Remove fan assembly and set aside to clean blades.



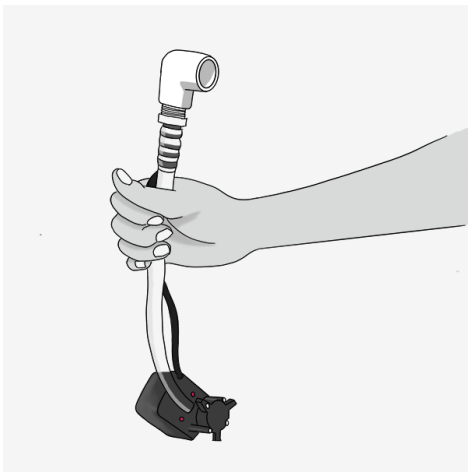
3. Wipe blades with a soft brush or damp cloth. Do not spray water or cleaner directly on the fan motor.



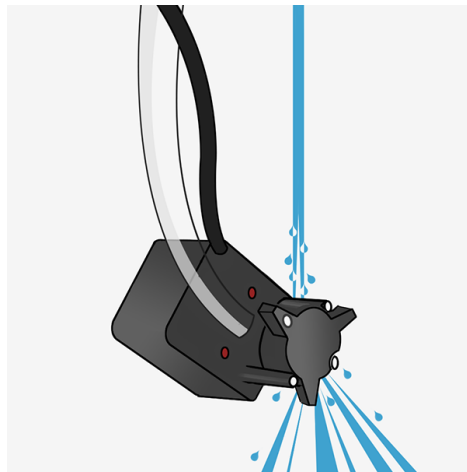
4. Lift out air/water inlet tray by gently squeezing openings.
Wipe or wash with damp cloth.



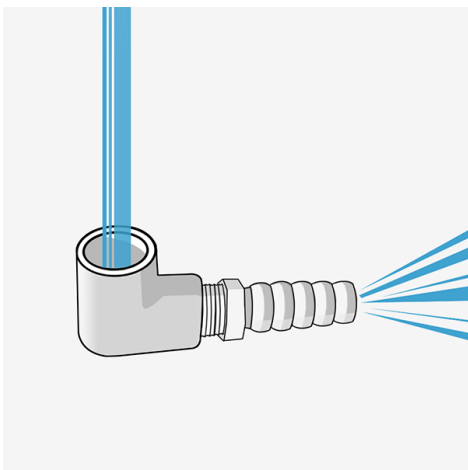
5. Disconnect the pump line from the tee connection fitting.
(You may have to twist side-to-side as you're pulling the fitting apart)



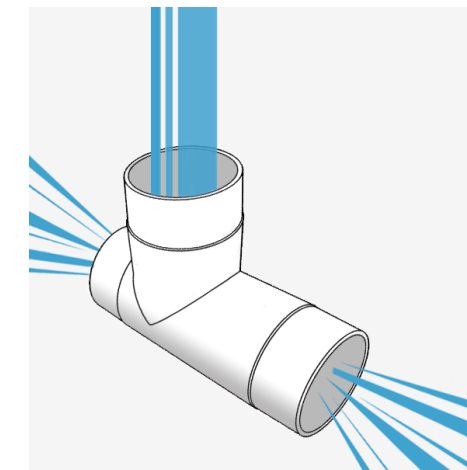
6. Gently lift pump out of core pipe.
(Be careful not to damage core pipe when lifting.)



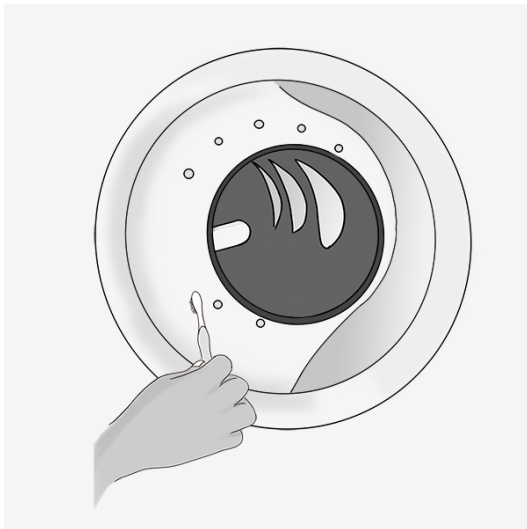
7. Clean the head of the pump under running water.
Wipe with cloth if needed.



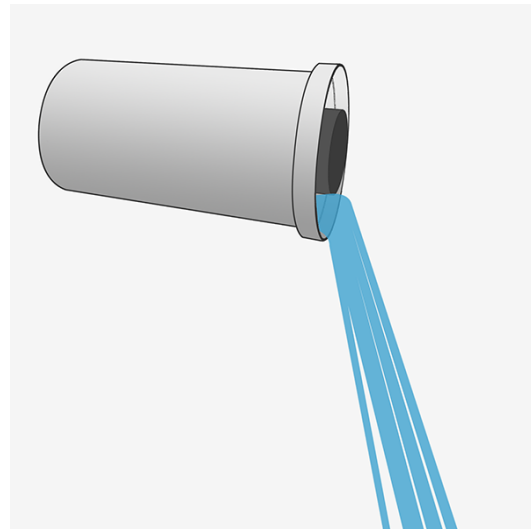
8. Run water through the water line, clearing any buildup.



9. Remove tee connection and run under water to clean.



10. Loosen debris accumulation in water box with brush. (It is best to remove debris into drain or garbage so that it does not re-clog the openings on the water box.)



11. Rinse reservoir with water and drain debris.

12. Reassemble, fill with water, add BioOx Natural Media, and start up.

TROUBLESHOOTING FOR THE BIOOX CLEAN AIR SYSTEM

If water flow slows or ceases OR if water consumption decreases to almost nothing: check for a malfunctioning pump or for clogged openings on the water circulation tray. This indicates that the unit needs cleaning.

To check if the pump is working:

1. Unplug the water pump and the fan from electrical outlet.
2. Lift off fan assembly.
3. Plug water pump in and look into water box to see if water is flowing.

PREPARING FOR AN EXTENDED LEAVE

When leaving for a few days: disconnect pump and fan from electricity (turn off).

When not in use for a week or longer: disconnect fan and pump from electricity and drain out water from the reservoir.

When not in use for several months: disconnect from electricity and drain out water from reservoir. Clean unit and allow to dry. You can store the BioOx Clean Air System for years in this manner. When ready to use, refill with water, add BioOx Natural Media and startup.

CONTACT INFORMATION

Questions or comments regarding the
BioOx Clean Air System should be
directed to:

Air & Water Solutions, Inc.
11 Melanie Lane (Unit 23)
East Hanover, New Jersey 07936

301-246-0151

info@bioox.us

www.bioox.us