

LIMITED WARRANTY

Within one year from the date of original purchase, Marineland Aquarium Products will repair or replace, at its option, any Emperor Filter System which is deemed defective in workmanship or materials.

Please return the unit, together with proof of date of purchase, to your local dealer or send unit (postage paid) to:

Marineland Aquarium Products
6100 Condor Drive, Moorpark, CA 93021

Damage or injuries resulting from negligence or misuse are not covered by these warranties. Incidental or consequential damages are specifically excluded*. These warranties give you specific legal rights. You may also have other rights which vary from state to state.

*Because some states do not allow the exclusion of incidental or consequential damages, this exclusion may not apply to you.



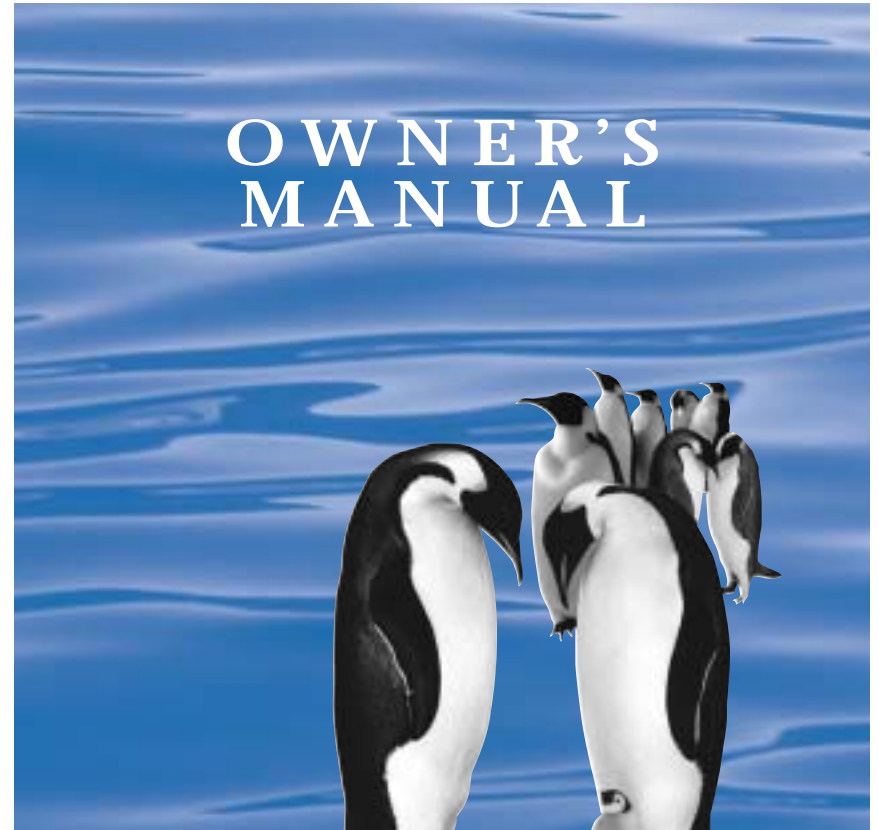
The Emperor and Emperor 280 are listed by Underwriters Laboratories to ensure that they meet stringent U.S. and Canadian safety requirements.



Marineland, The Emperor, BIO-Wheel, Black Diamond, White Diamond, Diamond Blend and BIO-Pump are trademarks of AQUARIA, Inc.



OWNER'S MANUAL



The EMPERORTM Filter System

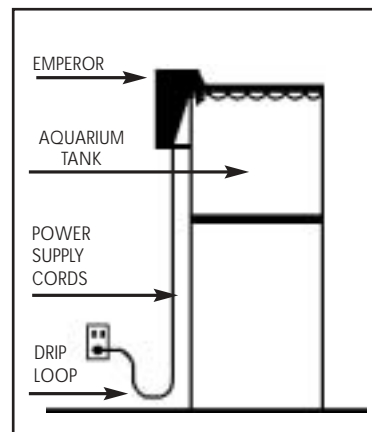
IMPORTANT SAFEGUARDS

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

DANGER – To avoid possible electric shock, special care should be taken in the use of aquarium equipment. 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.

1. A. If the appliance falls into the water, DON'T reach for it! First unplug it and then retrieve it. If electrical components of the appliance get wet, unplug the appliance immediately.
B. If the appliance shows any sign of abnormal water leakage, immediately unplug from the power source.
C. Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.
D. 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.
E. To avoid the possibility of the appliance plug or receptacle getting wet, position 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", shown in the Figure at right should be arranged by the user for each cord connecting an aquarium appliance to a receptacle.



The "drip loop" is that part of the cord below the level of the receptacle or the connector, if an extension cord is used, to prevent water traveling 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.

2. Close supervision is necessary when any appliance is used by or near children.
3. To avoid injury, do not contact moving parts or hot parts such as heaters, reflectors, lamp bulbs, etc.
4. Always unplug an appliance from an outlet 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.
5. Do not use an appliance for other than intended use. The use of attachments not recommended or sold by the appliance manufacturer may cause an unsafe condition.
6. Do not install or store the appliance where it will be exposed to the weather or to temperatures below freezing.
7. Make sure an appliance mounted on a tank is securely installed before operating it.
8. Read and observe all the important notices on the appliance.
9. 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.
10. This appliance has polarized plugs (one blade is wider than the other). As a safety feature, the plugs will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. Never use with an extension cord unless plug can be fully inserted. Do not attempt to defeat this safety feature.

SAVE THESE INSTRUCTIONS



Your Window to Another World

Welcome to the world, the art, the experience of fishkeeping.

Each year, thousands of new fishkeepers discover the natural wonder of aquariums. Fishkeeping provides them, and now *you*, the unique opportunity to not only observe another world, but to *create* it as well. In the process, you'll learn about aquatic animals and observe their behavior first hand. And there is nothing quite like an aquarium to generate an appreciation and respect for our environment.

Fun, easy and instructive, an aquarium is a singularly beautiful, always fascinating addition to any home or office decor...a welcome source of entertainment, education and relaxation for the entire family.

Fish As Pets

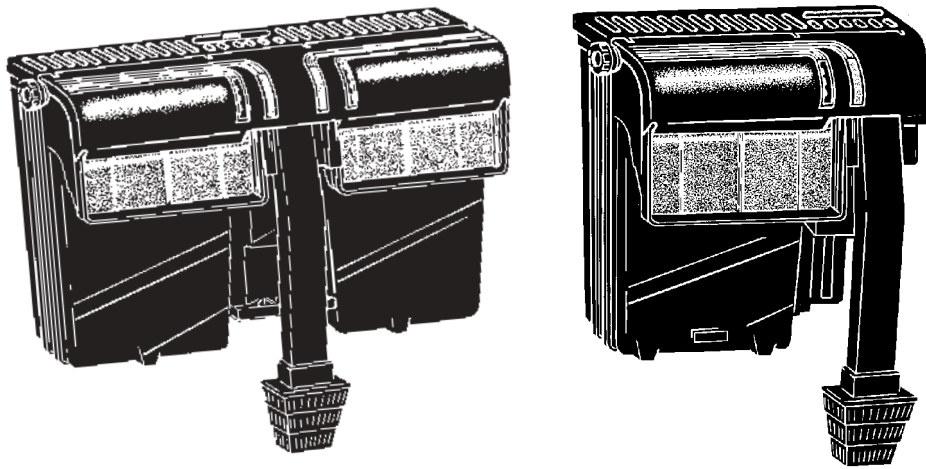
Think of your fish as pets and you'll agree they deserve the best care and attention you can provide. They rely on you to keep their environment healthy. A healthy aquarium is relatively easy to achieve and maintain, but it will not happen by itself...it depends on you.

In rivers, lakes and oceans, water is cleansed and filtered naturally. In an aquarium, things are different. In order to keep aquarium water clean and healthy, *you* must help. This means taking care not to overcrowd the tank or overfeed the fish. It means changing the water regularly, cleaning the gravel bed and providing the proper filtration.

Emperor is the proper filtration...and more. In fact, Emperor is all the filtration you need.

All the Power,
all the Filtration You Need.

EMPEROR™ Filter Systems



Total, balanced aquarium filtration is the key to maintaining a healthy aquarium environment. Emperor advanced systems technology effectively and efficiently provides all three necessary filtration elements – mechanical, chemical, and most importantly, biological - for optimum performance.

Total 3-Stage Filtration Efficiency

Mechanical Filtration traps solid debris like uneaten food and fish waste.

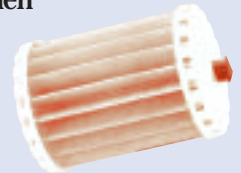
Chemical Filtration uses media (activated carbon) to adsorb (attract and hold) dissolved pollutants which can cause discoloration and odor.

Biological Filtration is the most critical kind of filtration. It depends on a culture of beneficial oxygen-breathing bacteria to eliminate toxic ammonia and nitrite that accumulate in aquarium water. The bacteria culture biologically changes the ammonia and nitrite into nitrate, which is removed with once-a-month partial water changes.

The Heavy Duty Emperor Filter Cartridge provides superior mechanical and chemical filtration - twice the amount of activated carbon filtration and 45% more mechanical filter area. Dense polyfibers trap larger quantities of dirt and unsightly, unhealthy solid waste. For chemical filtration, each cartridge is packed with Black Diamond Premium Activated Carbon...the highest grade there is.

The Refillable Media Containers can hold an additional four ounces each of Black Diamond Premium Activated Carbon, White Diamond Ammonia Neutralizing Crystals or Diamond Blend. White Diamond removes up to four times more deadly ammonia than other brands. Diamond Blend combines the purifying power of Black Diamond with the protective, ammonia-adsorbing action of White Diamond, outperforming other mixes by as much as 4 to 1. Both are ideal for maximizing Emperor's pollution removal capacity.

The patented BIO-Wheel® is the undisputed best when it comes to biological filtration. Better than frames or foams or fluidized beds. Better than UGF's and other submerged biomed. Years of continuing laboratory tests and field evaluation prove it.



Superior BIO-Wheel Performance

As the spray-bar driven BIO-Wheel turns, it contacts water and air...providing the bacteria with the oxygen they need to grow. Because it is a *wet/dry* biological filter, BIO-Wheel provides bacteria with as much as 30,000 times more oxygen than any *underwater* biological filtration. More oxygen means more bacteria working many times harder (and many times faster) to keep your tank ammonia-free and sparkling.

IMPORTANT: Slow or irregular BIO-Wheel rotation is normal. A BIO-Wheel rotating at any speed is removing ammonia and nitrite. There is no reason to replace a BIO-Wheel unless it is damaged. If your BIO-Wheel fails to rotate or stops completely, consult the Troubleshooting section of this manual. Always remove BIO-Wheels before adding any medication. Antibiotics can destroy the beneficial bioculture. Keep BIO-Wheels exposed to air and reinstall after treatment is complete.

Revolutionary Two Pump Design

The Emperor Filter Systems feature not one pump (as in ordinary power filters), but two separate water pumps. The **Flow Pump** directs water through the entire multi-stage filtration system. The **BIO-Pump** pressurizes and sends a stream of prefiltered, oxygen-rich water through the spray bars to power-drive the BIO-Wheel. And...the Emperor's unique design allows the BIO-Pump to continue powering the BIO-Wheels even when Flow Pump output is reduced (for feeding or maintenance) by the convenient One-Touch Flow Control.

BEFORE YOU BEGIN...

When creating a new aquarium environment, patience is the first key to success. Allow your system to operate for at least 24 hours before adding fish. Then begin with a few fish, adding more fish gradually over a 4-6 week period. This allows the BIO-Wheel to establish a beneficial bacteria culture for peak efficiency.

And Remember...

Choose your aquarium location carefully.

Always place an aquarium in a location designed to support its total weight. An aquarium filled with water and gravel weighs approximately 10-12 pounds per gallon. *Always* place an aquarium on a flat, level surface (never on the floor, however). Aquarium stands less than 12" wide should be anchored or tethered to a wall to provide stability. *Never* place an aquarium in direct sunlight. Full or even partial sunlight can cause excessive algae growth.

Handle your aquarium with care.

Never attempt to move a full or partially full aquarium. *Never* lift an aquarium with wet hands. *Always* grasp and carry an aquarium from underneath, supporting the bottom at all times.

Change your aquarium water regularly.

Partial water changes - 25% at least once a month - are vital to maintaining a healthy aquarium. Always fill with room temperature water.

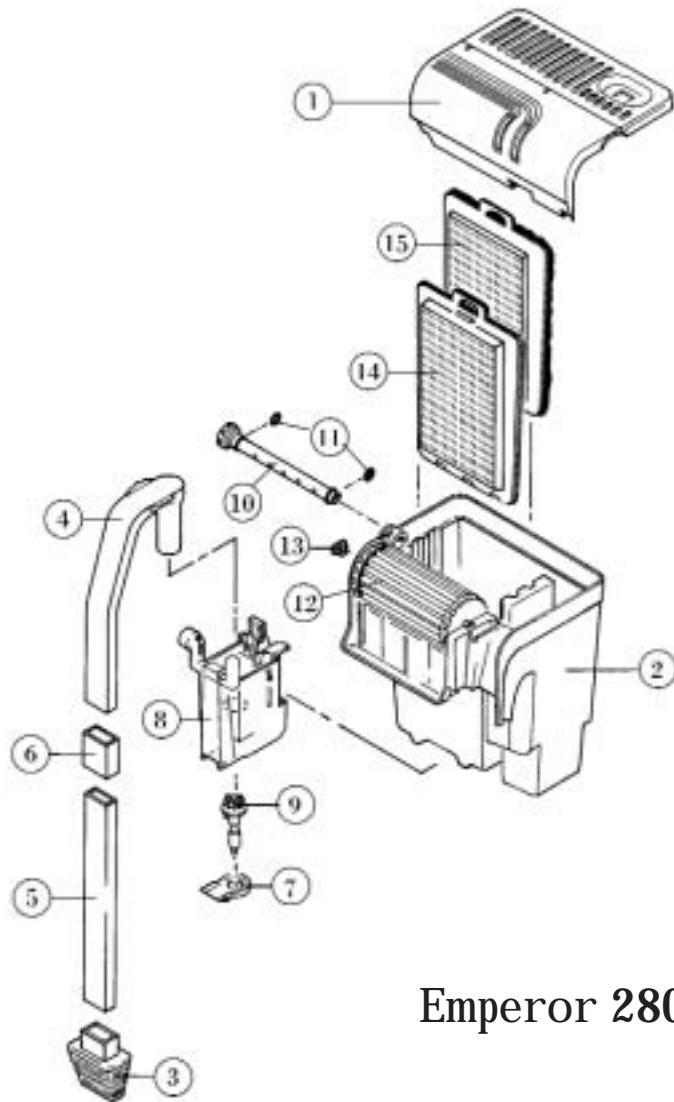
Treat all new aquarium water.

Always dechlorinate water before adding it to your aquarium. Do not add plain tap water - it can kill your fish.

Clean aquarium gravel regularly.

Use a Marineland Power Kleen Gravel Washer to suction out grunge and debris. Replace your Emperor Filter Cartridge at least once a month. If water appears cloudy and/or bad smelling, change the cartridge immediately.

PARTS DIAGRAM & IDENTIFICATION



Emperor 280

THE EMPEROR 280-REPLACEMENT PARTS LIST

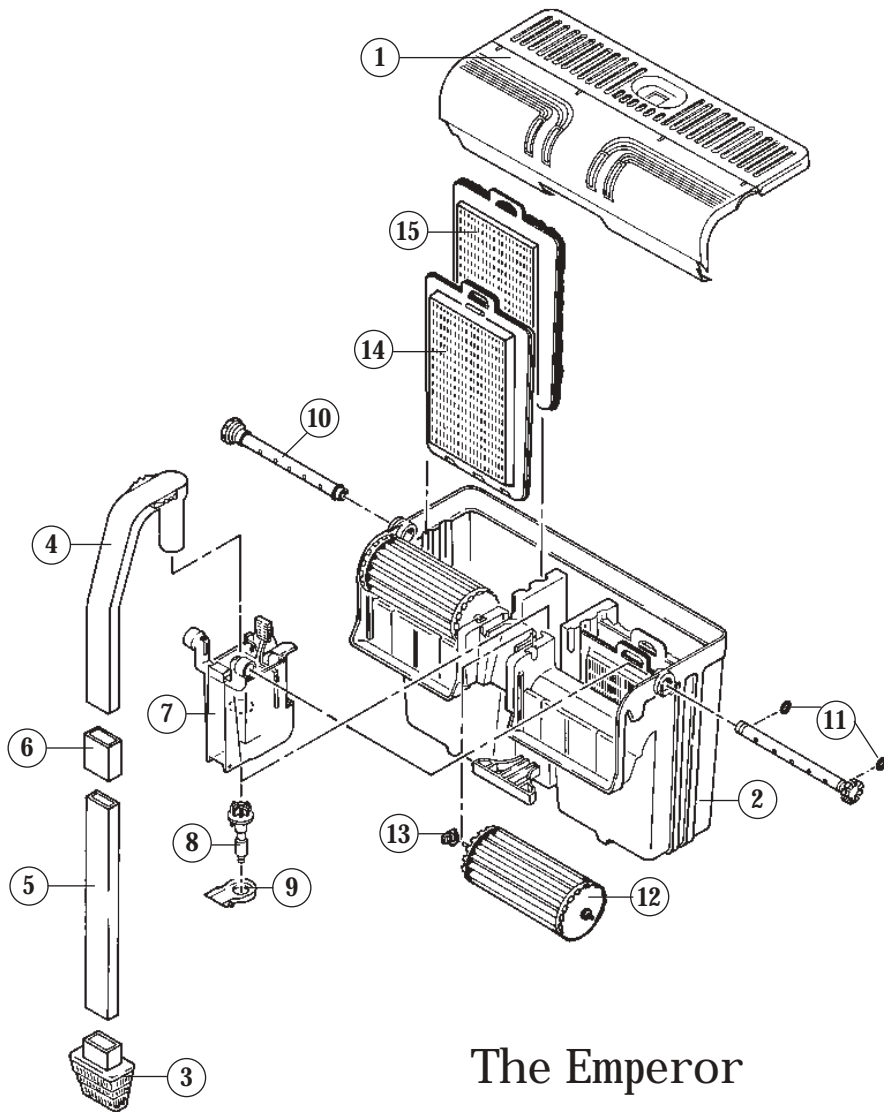
KEY	ITEM DESCRIPTION	ITEM NO.
1	Two-Way Hinged Cover Assembly	PR2105
2	Filter Box	N/A
3	Intake Strainer	PR2110
4	Intake Tube	PR2111
5	Intake Tube Extension	PR2112
6	Intake Tube Extension Coupler	PR2113
7	Flow Manifold Housing Cover	PR2122
8	Flow Manifold Housing	PR2125
9	Magnetic Impeller Assembly-Green	PR2126
10	Spray Bar Assembly	PR2130
11	Spray Bar O-Rings - Pkg. 4	PR2045
12	BIO-Wheel Assembly - Emperor	PR2140
13	BIO-Wheel Bearing(s) - Pkg. 2	PR2141
14	Emperor Media Container	PR2150
15	Emperor Filter Cartridge - 2 pack	PA0137-2
15	Emperor Filter Cartridge - 4 pack	PA0137-4
N/S	Filter Cleaning Brush (not shown)	PA0590

CUSTOMER SERVICE INFORMATION

For additional assistance or to order parts direct, you may call the Customer Service Department at (800) 322-1266 M-F between the hours of 8am and 5pm (Pacific Time). Please have your manual and MasterCard or VISA ready when ordering.

NOTE: Emperor Filter Cartridges and Filter Cleaning Brush are not sold as replacement parts. They may be purchased at your local Marineland retail outlet.

PARTS DIAGRAM & IDENTIFICATION



THE EMPEROR - REPLACEMENT PARTS LIST

KEY	ITEM DESCRIPTION	ITEM NO.
1	Two-Way Hinged Cover Assembly	PR2100
2	Filter Box	N/A
3	Intake Strainer	PR2110
4	Intake Tube	PR2111
5	Intake Tube Extension	PR2112
6	Intake Tube Extension Coupler	PR2113
7	Flow Manifold Housing	PR2120
8	Magnetic Impeller Assembly-Natural	PR2121
9	Flow Manifold Housing Cover	PR2122
10	Spray Bar Assembly	PR2130
11	Spray Bar O-Rings - Pkg. 4	PR2045
12	BIO-Wheel Assembly - Emperor	PR2140
13	BIO-Wheel Bearing(s) - Pkg. 2	PR2141
14	Emperor Media Container	PR2150
15	Emperor Filter Cartridge - 2 pack	PA0137-2
15	Emperor Filter Cartridge - 4 pack	PA0137-4
N/S	Filter Cleaning Brush (not shown)	PA0590

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ASSEMBLY/OPERATIONAL INSTRUCTIONS

10 simple steps to Final Assembly and Installation of your new Emperor Power Filter.

NOTE: Assembly/Operational and Maintenance instructions for The Emperor and Emperor 280 Power Filters are virtually identical. For this reason, and in the interest of avoiding confusion, the sections that follow feature diagrams for the Emperor model only. You will find that the steps pictured are readily applicable to the Emperor 280 model as well. Most parts are preassembled and do not require disassembly prior to installation. We recommend that you read the Maintenance section that follows to familiarize yourself with the overall operation of The Emperor and Emperor 280.

Before you begin, remove and inspect all parts. If any are missing or damaged, there is no need to return the entire Emperor unit. Replacement parts may be obtained from the store where purchased, or by calling Marineland Customer Service - (800) 322-1266.

STEP 1: INSTALL EMPEROR CARTRIDGE(S)

Rinse Emperor Filter Cartridge(s) thoroughly under cold water to remove any dust. Shake cartridge horizontally, (blue side up) to evenly distribute carbon over ribbed back. Slide Filter Cartridge(s) into Filter Cartridge Channels (narrow side *down*, ribbed back facing *toward* aquarium, Figure 1). Be sure each is seated securely in bottom channel.

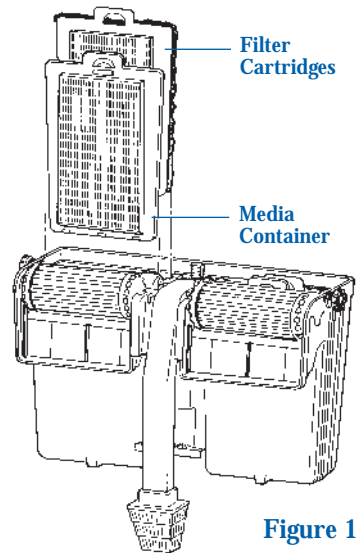


Figure 1

STEP 2: FILL MEDIA CONTAINER(S)-OPTIONAL

Emperor Refillable Media Container(s) can be used for additional filtration. Open and fill the "bottom" half with Black Diamond Premium Activated Carbon, White Diamond Ammonia Neutralizing Crystals or Diamond Blend. DO NOT OVERFILL.

To ensure a tight fit upon closing, make sure that entire surface area of **Surrounding Well** and tops of **Interior Shelves** are absolutely free of debris (Figure 2). Then rinse under fresh cold water to remove any dust.

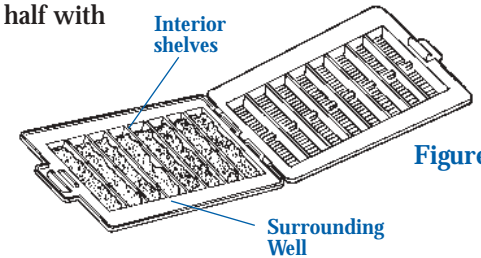


Figure 2

STEP 3: INSTALL MEDIA CONTAINER(S)

Slide Media Container(s) into Media Container Channels. For optimum mechanical filtration, Emperor Cartridges and Media Containers should always be positioned as shown (Figure 1). As an alternative, additional Emperor Cartridge(s) may be used in place of Media Container(s).

STEP 4: INSTALL FILTER BOX

Hang Filter Box in desired location on back of aquarium.

STEP 5: ASSEMBLE INTAKE TUBE AND STRAINER

Slip **Intake Strainer** onto long end of **Intake Tube**. Depending on aquarium size, Intake Tube may be lengthened using the **Intake Tube Extension** and **Extension Coupler** (Figure 3).

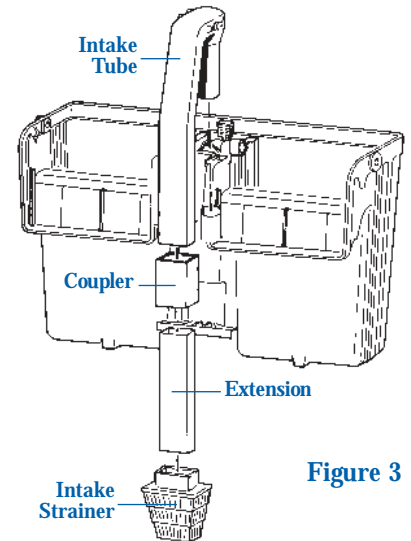


Figure 3

STEP 6: INSTALL INTAKE TUBE

The **Tube Guides** on either side of the Intake Tube slide into the **Tube Slots** of the Flow Manifold Housing. This holds the Intake Tube securely in place (Figure 4). Be sure that Tube fits securely in **Housing Collar**. Once in place, Intake Tube should not wobble.

Note: *If Intake Tube is not properly seated, filter will not operate.*

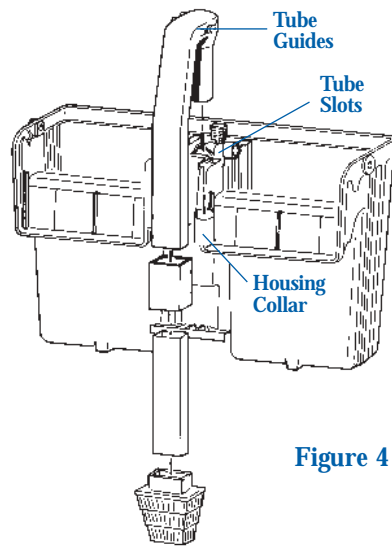


Figure 4

STEP 7: ADD WATER

Pour water into Filter Box until approximately half full.

IMPORTANT:

NEVER allow the Emperor System to operate without water at any time.

STEP 8: REPLACE COVER AND SET FLOW CONTROL

Make sure One-Touch Control is in “full flow” (extreme “up”) position. (Figure 5).

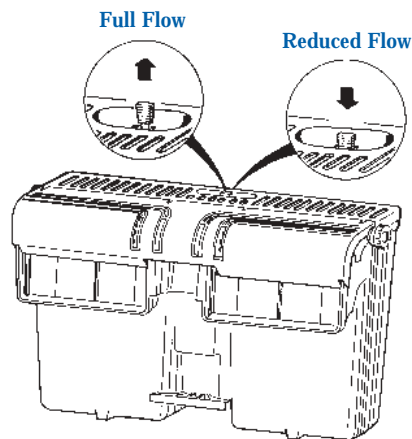


Figure 5

IMPORTANT: To prevent wasteful overloading of Emperor Cartridge with fish food, reduce water flow by simply pressing down on the Flow Control. This will not affect BIO-Wheel rotation or compromise biological filtration. After feeding, be sure to return Flow Control to “up” position.

STEP 9: START YOUR EMPEROR

Creating a Drip Loop (see pg.2-3), plug cord into standard receptacle. Filter will make a bubbling sound as air is evacuated from Intake Tube. Once the air is gone (approximately 40 seconds), the filter will fill and water will begin to flow back into aquarium. Water flow through Spray Bar(s) will initiate rotation of BIO-Wheel(s). **NOTE:** *Do not force plug into a non-polarized receptacle. Adapters are available at most hardware stores.*

CAUTION

CAUTION: IF YOU CHOOSE TO USE AN OUTLET STRIP..

Use only one that is properly approved and equipped with a fuse or circuit breaker. Place outlet strip away from aquarium tank and make sure all receptacles are protected from water splash, spillage or vapor. Frequently check electrical equipment and connections for signs of moisture, greenish corrosion or black sooty residue (arcing). If evident, turn off power IMMEDIATELY and correct the problem.

STEP 10: ADJUST BIO-WHEEL ROTATION

Turn **Spray Bar Adjustment Knob(s)** up or down to change angle of water flow. Do not attempt to force Spray Bar(s) past the range allowed by bar lock(s). Adjust Spray Bar(s) to rotate *slowly*...faster rotation does not enhance performance.

BIO-Wheel rotation can be easily monitored via the **BIO-Wheel Indicator Window(s)** (Figure 6).

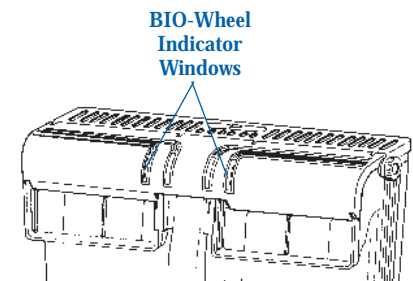


Figure 6

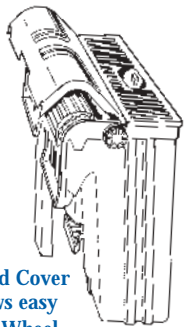
Remember, optimum biological filtration takes time. When creating a new aquarium environment, patience is the first key to success. Begin your setup with a few fish, adding more fish gradually over a 4-6 week period. This allows the BIO-Wheel to establish a beneficial bacteria culture and develop peak operational efficiency. Also, a cultured BIO-Wheel can be transferred to other new aquarium environments to speed the break-in process.

MAINTENANCE

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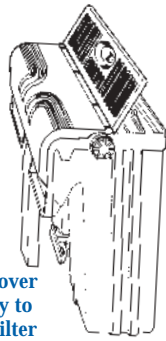
- NEVER submerge Emperor in water.
- NEVER attempt to remove Flow Control from Emperor.
- NEVER use soaps, detergents, abrasives or any other cleaning agent on or around filter or aquarium.
- ALWAYS unplug unit *before* performing maintenance *of any kind*.

Proper filter maintenance begins with frequent visual inspections to ensure normal system operation and non-stressful conditions for fish. The unique EMPEROR hinged cover (Figure 7) makes it easy to inspect BIO-Wheel(s) or change filtration media (Figure 8) without removing the cover. Another unique feature - the Water Level Indicator Window(s) (Figure 9) - helps make daily maintenance even easier. When the water level shows half full or higher, Emperor Cartridge(s) should be changed and Media Container(s) should be refilled. Non-operative pumps, excessive mechanical or water noise, cloudy and/or bad smelling water all require **immediate** attention.



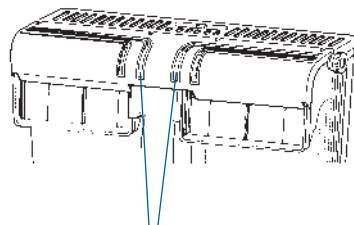
Hinged Cover allows easy BIO-Wheel inspection.

Figure 7



Hinged Cover lifts easily to Change Filter Cartridges or replace media.

Figure 8



Water Level Indicator Windows

Figure 9

We recommend the following complete maintenance procedure as needed (at least every 2 months):

1. Remove BIO-Wheel(s) and set aside. To avoid disturbing bacteria culture, handle a BIO-Wheel by the Caps and/or Axle (Figure 10). Any algae, mineral deposits or other buildup that hinder rotation can be eliminated with a gentle rinse in room temperature water.

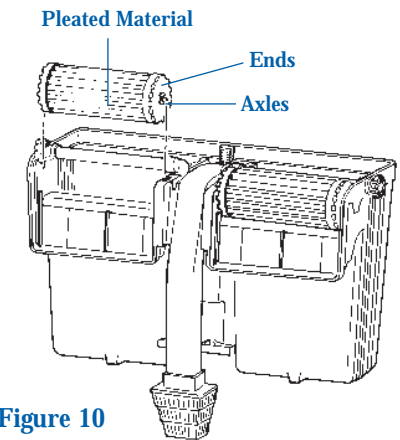


Figure 10

2. Gently clean BIO-Wheel Bearings and inspect for wear. It is not necessary to remove Bearings (Figure 11). If Bearings are worn, they may then be removed and replaced.

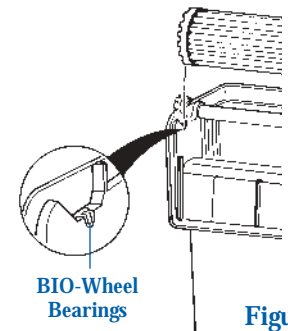
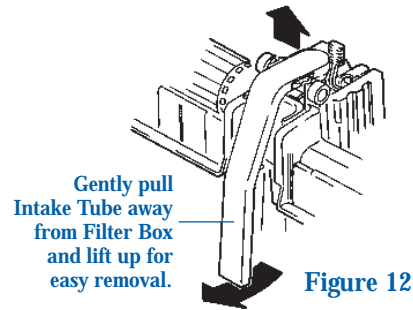


Figure 11

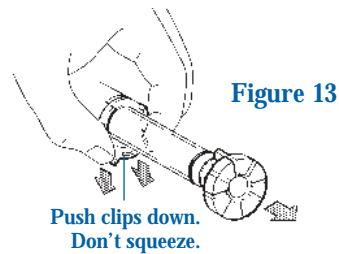
IMPORTANT: Every BIO-Wheel is preassembled at the factory. It should not be tampered with or disassembled. Discoloration of pleated material is normal and desirable. NEVER CLEAN BIO-WHEEL. If it becomes so heavily cultured that it no longer rotates, you can gently rinse the surface to remove the heaviest buildup. Use treated (dechlorinated), room temperature tap water only. As long as a BIO-Wheel is not damaged, it does not need to be replaced.

3. Remove and discard used Emperor Cartridge(s). Remove, empty and clean Media Containers(s).

4. Remove Intake Tube from Flow Manifold Housing (Figure 12). Brush inside tube surface clean. Rinse with cold water.

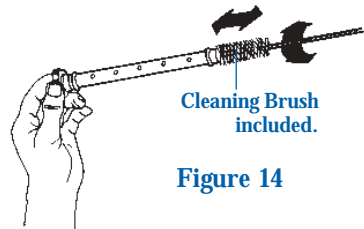


5. Carefully remove Emperor unit from back of aquarium.

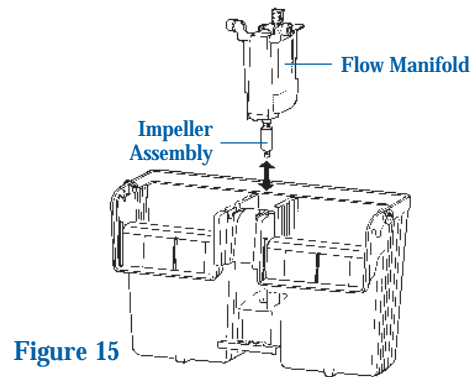


6. Release and remove Spray Bar(s) (Figure 13).

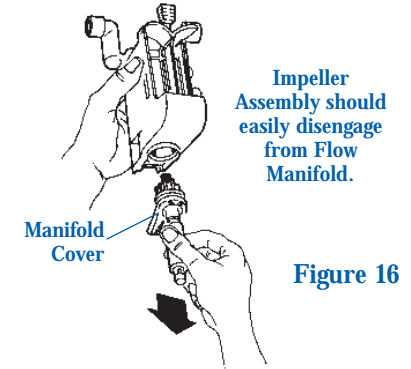
7. Clean thoroughly with custom Cleaning Brush (Figure 14). After cleaning, set Spray Bar(s) aside until reassembly.



8. Gently lift Flow Manifold and Magnetic Impeller Assembly from Filter Box (Figure 15).

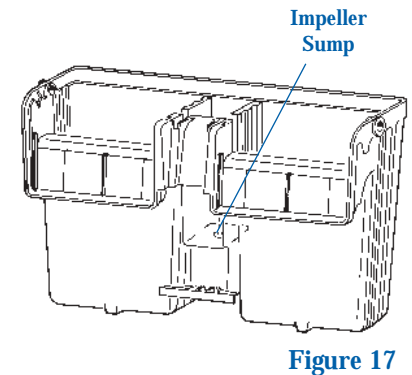


9. Remove Magnetic Impeller Assembly and Manifold Cover as shown (Figure 16). Clean Impeller and rinse thoroughly. Inspect for wear. Purchase new part if excessive wear or damage is evident.



10. Clean all parts thoroughly. Rinse with cold water. After reassembly, Impeller should rotate freely and silently - without wobble or hindered motion of any kind. **Do not** re-install Flow Manifold yet.

11. Using cold water, wipe down the inside and outside surface of empty Filter Box with a clean cloth. Using custom cleaning brush, clean Impeller Sump carefully and completely, making sure that no debris or particles remain (Figure 17).



12. Reassemble parts. Refer to Parts Diagram (Pages 10 & 11) if necessary. Remember to wet O-rings when replacing Spray Bar(s). Also, make certain that Spray Bar(s) “snaps” firmly into place.

13. Install new Emperor Filter Cartridge(s).

NOTE: Use *only* genuine Emperor Cartridges. Substitutions often contain lower grades and/or quantities of carbon and may not fit properly. This can result in reduced filtration effectiveness.

Refill and install Media Containers(s).

14. Return Emperor unit to back of aquarium. Refill with water. Restart filter. Check water flow and BIO-Wheel rotation. Review Assembly Steps 7-11, if necessary.

TROUBLESHOOTING GUIDELINES

IMPORTANT:

Always unplug the Emperor when inspecting or disassembling.

SYMPTOM	COMMENTS/SOLUTION
If the Emperor fails to start (or stops) pumping water...	<p><i>Be Sure</i> you have primed the filter box properly (fill box 1/2 full prior to plugging in system) and that Flow Control is in the "full flow" position.</p> <p><i>Make certain</i> the outlet has power and is functioning properly by first unplugging electrical cord momentarily, then reconnecting to power source to restart the Impeller.</p> <p><i>Check</i> to see that Flow Manifold is seated firmly in Filter Box and that aquarium water is at correct level (1/2" - 3/4" from top of aquarium). Inspect Intake Tube to ensure that it is not displaced from inside the Impeller Housing Collar.</p> <p><i>Remove</i> Flow Manifold and make certain that the Magnetic Impeller Assembly is free to rotate. A particle of carbon or gravel may be interfering with rotation.</p>
If the Emperor makes mechanical noise...	<p><i>Remove</i> Flow Manifold and make certain Magnetic Impeller Assembly is free to rotate. Debris may be hindering silent rotation.</p> <p><i>Replace</i> worn or damaged Magnetic Impeller Assembly. Refer to parts list for part number.</p>
If BIO-Wheel splashes and/or makes excessive water noise...	<p>Allow 24-48 hours for "breaking in" period. Material in a BIO-Wheel is not fully absorptive when new.</p> <p>Check aquarium water level. Lower than normal levels can result in excessive splash or noise.</p> <p>Adjust Spray Bar to ensure slow BIO-Wheel rotation.</p>

SYMPTOM	COMMENTS/SOLUTION
If BIO-Wheel stops...	<p>Don't panic. Chances are, the wheel is not permanently stopped. Irregular rotation, including brief pauses, is normal. As long as the wheel continues to move periodically and remains wet, it is functioning properly.</p>
If BIO-Wheel appears permanently stopped or obstructed...	<p><i>Inspect</i> BIO-Wheel Bearings and Axle for dirt or mineral deposits. If evident, clean these areas carefully.</p> <p><i>Make sure</i> all parts are installed properly and that there are no obvious obstructions to free rotation.</p> <p><i>Check</i> Spray Bar and Spray Bar apertures for obstructions. If evident, clean areas carefully.</p> <p><i>Examine</i> Intake Tube for flow obstruction.</p> <p><i>Perform</i> regular filter maintenance.</p>
If a BIO-Wheel becomes discolored...	<p><i>This is not a problem.</i> It indicates the development of beneficial biological culture. Do not attempt to clean BIO-Wheel pleats.</p>

Customer Service:

(800) 322-1266

M-F, 8AM - 5PM (Pacific Time)