



AllPondSolutions
aquarium range



Aquarium External Filters

EF1+ / EF2+ / EFX+

 **Filtres Externes pour Aquarium**

 **Filtri Esterni per Acquario**

 **Filtros Externos para Acuario**

 **Aussenfilter**



NEW
AND
IMPROVED
DESIGN

**BUILT IN UV
CLARIFICATION**



EASY PRIMING SYSTEM

MULTI LAYER FILTRATION

TAP SHUT OFF SYSTEM

QUIET OPERATION

EASY TO MAINTAIN

To ensure your new external filter is set up and running correctly, and to prevent any accidental damage or injury, please read and follow the below instructions carefully before using your product.

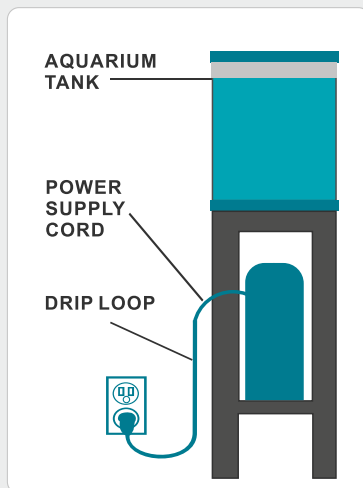
SAFETY

Important! Disconnect the mains electricity supply before attempting any installation / maintenance of any kind. Do not attempt to modify this unit in any way and only use the recommended parts for replacement.

- The external filter should never be run dry as this will cause the unit to overheat and cause permanent damage.
- All connections must be earthed.
- 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 connect to any voltage other than that stated.
- This filter is suitable for indoor household aquariums only (do not use in exterior locations, swimming pools, ponds, bathrooms etc). Do not place in liquids other than water.
- Do not use with water above 90F or 30C.
- Do not carry or pull the unit by its electrical cable.
- Do not use this unit if it has a damaged cord or plug, if it is malfunctioning or it is dropped or damaged in any manner
- Do not yank cord to pull plug from outlet. Grasp the plug and pull to disconnect. Always unplug an appliance from an outlet when not in use.
- Do not attempt to modify this unit in any way and only use the recommended parts for replacement.
- Before installing, maintaining or handling your equipment, or before placing your hands in your aquarium, ensure that the unit is disconnected from the electricity supply.
- Always unplug any electrical devices when not in use.
- Carefully examine your filter after installation. Do not plug in the unit to the mains if there is water on any parts not intended to be wet.

- The power cable must have a drop loop to avoid any condensation build up reaching the mains (see diagram 1). If the plug does get wet, DO NOT unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the appliance. Then unplug and examine for presence of water in receptacle.
- Carefully examine your filter after installation. Do not plug in the unit to the mains if there is water on any parts not intended to be wet.
- If the unit shows any signs of water leakage, disconnect the power supply cord from the wall socket and consult All Pond Solutions or the retailer you purchased this unit from for further advice.
- If the plug or unit does get wet, DON'T unplug the cord. First, disconnect the circuit breaker or fuse that supplies power to the appliance. Next, unplug and inspect for water presence in the receptacle.
- To avoid injury, do not touch hot or moving parts such as, but not limited to, heaters, reflectors, UV bulbs or impellers.

Diagram 1



Please note – this appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, provided they are given supervision and instruction concerning use of the appliance and understand the hazards involved. Children must not play with the appliance. Any maintenance must not be made by children without supervision.

ELECTRIC

This unit comes complete with a generous supply of 3 core cable, however should any additional cable be required, the use of an approved waterproof cable connector with a proper rating is essential. A cord rated for less amperes or watts than the appliance rating may overheat.

Please Ensure:

- The power supply must be earthed and fused at 3amps.
- You regularly inspect the cable for damage and deterioration.
- Do not connect to any voltage other than that stated.
- You consult a qualified electrician if in doubt about any aspects of wiring.

The external filter comes complete with a generous supply of 3 core cable, however, should any additional cable be required then the use of an approved waterproof cable connector is essential. A cord rated for less amperes or watts than the unit may overheat.

Please Ensure: The power supply must be earthed and fused at 3amps. Regularly inspect the cable for damage and deterioration. Consult a qualified electrician if in doubt about any aspects of wiring.

INSTALLATION & USE

Please read the below instructions carefully before beginning to set up your filter. **DO NOT CONNECT THE UNIT TO THE MAINS UNTIL SET UP IS COMPLETE AND UNIT IS FILLED WITH WATER.**

Important installation information:

- The base of the unit must **NOT** be more than 1.4m (4.5 ft) below the tank water level.
- The water level must **NOT** be more than 17cm (7 inches) below the tank rim.
- It is essential to position your external filter **BELOW** your aquarium.
- The green hose must be kept taut with no loops and follow a **STRAIGHT LINE** from the filter to the rim of the aquarium. If the hosing is too long the filter WILL NOT WORK CORRECTLY.
- The inlet pipe should **NOT** be positioned too close to an air stone, aeration device or the output valve to avoid reducing the effectiveness of the filter.

Unpack the unit and identify all parts using the parts diagram in this manual.

- ❶ Attach the EF tap to the filter head, pull up the tap handle to allow insertion (1), push the tap into the head tap area (2), fasten the tap into place using the tap handle (3).
- ❷ Unclamp all four head and body clips and separate the filter head from the filter body.
- ❸ Take out the filter media secure plate and pull out the filter media baskets using the handles provided. Using the baskets, rinse your filter media under the tap until it runs clear. Once you have done this you should place the rinsed baskets and filter media back inside the filter with the filter media secure plate at the top. Before replacing the motor head on the filter, fill your filter 3/4 full with water from your aquarium.
- ❹ Place the motor head back on top of the unit.
- ❺ Shut both of the motor head levers down and fasten the buckles to the side of the filter.
- ❻ Check that the EF tap is shut to avoid leakage (lever down), and ensure your pipework is setup as per the Set Up Diagram

Fit your hose to your aquarium so as the inlet hose is fitted to the overflow pipe and the outlet hose is fitted to the spray bar as per the Set Up Diagram. Please ensure your aquarium water level is high enough to cover all inlet and outlet pipework connection points, as otherwise you can let air into the filter system which will stop it from priming properly.

You may need to cut off any excess hosing to ensure the hose is not slack or causes looping. Ensure that the hose follows a straight line from the canister to your aquarium and its intake connection point is approximately 7.5cm (3 inches) below the water line. It is advisable to allow a small surplus before cutting the hose – you can always cut the hose further during final installation. This is extremely important as if the hose is too long, the filter may not operate correctly.

Important – the 'cut' side of the hose must always be connected to the inlet and outlet pipework connection points, NOT to the inlet / outlet tap hose adapters. The cut end of the hosing must also be kept underwater to ensure a watertight seal.

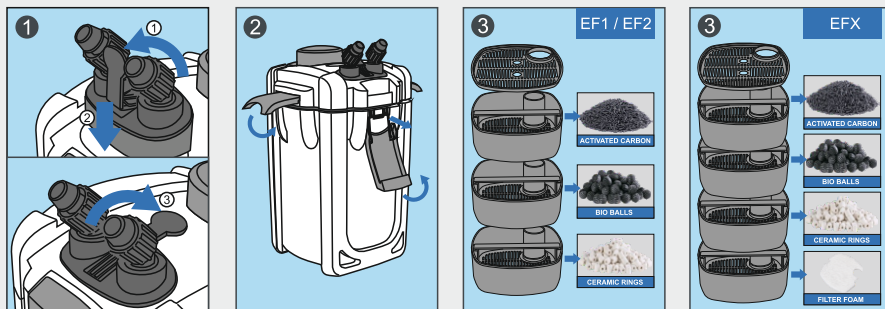
You must also make sure that the strainer on your inlet pipework is at least 7.5cm (3 inches) from the bottom of the tank. If your water intake pipe is too long, you will need to cut the pipe with a hacksaw to the desired length, before replacing the strainer. Once it is correctly positioned, secure the suction cup against the tank glass to hold in place.

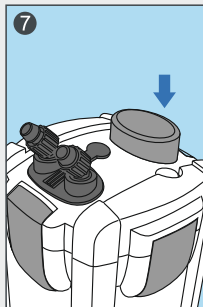
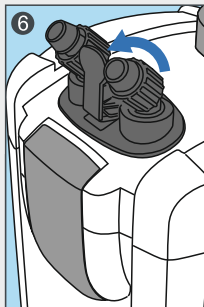
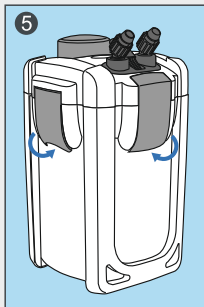
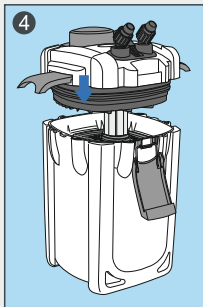
- 7 Once you have your filter in place and its hoses securely attached to your aquarium you are ready to prime the filter. Using the palm of your hand, push the blue button directly on top of the motor head as far down as it will allow you to and repeat if necessary, until the output hose has filled with water. You are now ready to plug your external filter in.

IMPORTANT – to prevent any damage to you unit, ensure the canister is completely full of water before the unit is switched on.

Water should flow constantly from the output – if it does NOT, check to confirm the following:

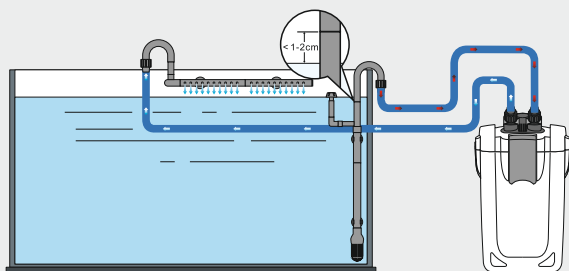
- The canister cover is fully closed
- Any kinks or slack in the hose have been removed
- The water level in the tank is not more than 17.5cm (7 inches) below the tank rim
- The base of the unit is not more than 1.4m (4.5 ft) below the tank water level
- There is no air bubbling or water escaping from where the water intake or return pipes are connected to the hose
- The hose adapters are fixed securely into the filter motor head.
- The inlet pipe is securely attached to the aquarium wall with the suction cup





SET UP DIAGRAM

Position the EF adjacent to your fish tank for maximum flow
Water must be 1-2cm above inlet bend pipe



Recommended set up beneath your tank

MAINTENANCE

To ensure optimal performance and that your unit functions correctly, regular maintenance is essential. Failure to do so may result in damage to your unit and may invalidate your warranty.

We recommend that a regular cleaning and maintenance schedule is followed to ensure responsible fishkeeping. Depending on water volume and stocking levels, regular cleaning of the filter media, foams, impeller, inlet/outlet pipework during a 10-25% water change will help ensure that the product works efficiently and the aquarium remains healthy.

For further maintenance guidance, please see the table and additional information below:

	1 MONTH	3 MONTHS	6 MONTHS	ANNUALLY
Impeller	Clean & Inspect			Replace
Ceramic Shaft	Clean & Inspect			Replace
All Pipework	Clean & Inspect			
Green Hose				Clean & Inspect
Priming Button			Lubricate & Clean	
O-Rings	Clean & Inspect	Lubricate & Clean		Replace
Filter Foams & Other Media	Clean & Inspect		Replace	
Carbon	Replace*			
UV Bulb			Replace	
Quartz Sleeve			Clean & Inspect	Replace after 2 years

* Carbon should be replaced every 2-3 months.

O-rings

It is vital that O-rings are regularly inspected and replaced as the rubber watertight seal will perish over time, which may cause your canister to leak. Before replacing your o-rings, ensure they are well lubricated.

Filter Maintenance

In general, it is recommended to disconnect your filter and clean the pipes, impeller and filter media monthly. Pipework will become blocked with waste and protein slime over time, so regular cleaning is important for optimal performance.

The frequency of how often you will need to clean and inspect your unit of course will depend on a lot of factors like how dirty the water is when you first start using an external filter, the volume of your water and also how many fish you have. How often you feed your fish and how long your lighting is on for will also affect how quickly your aquarium water gets dirty and will need to be taken into consideration when planning how often to clean your external filter.

Impeller and Shaft

A clogged impeller is often the primary cause of all filter faults, so it is extremely important to clean and inspect your impeller every month to ensure it is functioning correctly and remove any debris. Keeping the impeller clean will improve the performance of your filter and lengthen the life of the motor. The impeller itself is a perishable part and will be subject to wear and tear overtime. As a result, it is also very important to replace your impeller and ceramic shaft annually.

To gain access and clean your impeller and shaft open up the filter (disconnect the pipes and turn the filter off). You should be able to then see the impeller through an impeller guard in the middle of the motor head. Turn the impeller guard and pull it away and out of the motor head - you will then have full access to the impeller and shaft.



EF1+ EF2+



EFX+

Simply wash this and clean this with your aquarium water (from a water change) - whilst doing this you will be able to check that the impeller and shaft are both in good condition. When returning this to the motor head ensure this is seated correctly with the two rubbers on either end of the shaft (sometimes the rubbers stay in the holes that they fit into and will not be obviously evident when first removing the impeller and shaft).

Note: Handle the ceramic shaft with care as this can break very easily during the cleaning process.

Filter Media

The filter media provided with your external filter and there positioning within the media trays are designed to give complete and optimum filtration for your tank:

BOTTOM MEDIA TRAY	Ceramic Rings	Mechanic Filtration	Removes small waste particles from the water.
MIDDLE MEDIA TRAY	Bio Balls	Biological Filtration	Creates environment for nitro-bacteria to cultivate and help oxygenate the water.
TOP MEDIA TRAY	Activated Carbon	Chemical Filtration	Removes soluble waste, chlorine and cultivates nitro-bacteria.

Important! Always use water from your fish tank to clean your filter media. Do not use mains water or any cleaning products to clean your media.

The suggested filter media order is ceramic rings at the bottom, bio balls in the middle and active carbon at the top with one biochemical cotton in each tray, providing mechanical, biological and chemical filtration as the water flows up through the media baskets.

Please remember to change your activated carbon at least every 2-3 months as after this time it is possible that the carbon can have a negative effect on your aquarium as the very waste it removes can be released from the carbon back into the aquarium.

When cleaning mechanical or biological media, **NEVER** rinse with tap water or use any soap or detergent, only your aquarium water. The best time to rinse your filter foams, bio balls and ceramic rings through is when doing a 10 / 20% water change as you can use this water to wash the media through.

When replacing media in your filter, do not replace more than 50% of your media at once. This is to ensure that the nitrifying bacteria present in the old media are able to repopulate in the newly added filter media.

Draining Your Filter

Should you need to drain your filter for maintenance or repair purposes, please follow the steps below:

- 1 Close the inlet / outlet tap by lifting the lever all the way up. This seals off the input and output hosing connections, keeping the vacuum needed in order to restart the filter without priming.

- ② Unplug the power cord from the mains.
- ③ Remove the hose adapter by lifting the hose adapter securing buckle and pulling the adapter out of the motor head.
- ④ Holding the canister at the base, move it to a flat stable surface near a sink or other drain. (Be sure to hold upright to avoid spillages.)
- ⑤ To open the unit, unfasten the 2 buckles that are situated at the front and back of the filter then lift the 2 levers that are attached to the left and right sides of the motor head. On doing this the motor head will lift away from the unit. Set aside.
- ⑥ Holding the media baskets in place, tilt the canister over the sink or drain, and pour out as much water as possible.
- ⑦ Your media and foams will be saturated with water. Lift the filter media baskets out of the canister and place them in your sink or a large bucket.
- ⑧ Rinse the inside of the canister with clear aquarium water. NEVER use tap water, or soap or detergents, when cleaning your unit or rinsing media.
- ⑨ Rinse the inside of the priming cylinder with clear aquarium water. Make sure no debris is trapped inside the cylinder.
- ⑩ When you are ready to reconnect your filter, reinsert the filter media trays and reposition beneath your aquarium. Before replacing the motor head on the filter, fill your filter $\frac{3}{4}$ full with water from your aquarium. Place the motor head back on top of the unit, shut both of the motor head levers down and fasten the buckles to the side of the filter. Fit the hose adapter back into the motor head and re-fasten it using the securing buckle.
- ⑪ Top up your aquarium tank water level from any water used.
- ⑫ Reconnect the power cord to the mains.

Replacing the UV Bulb

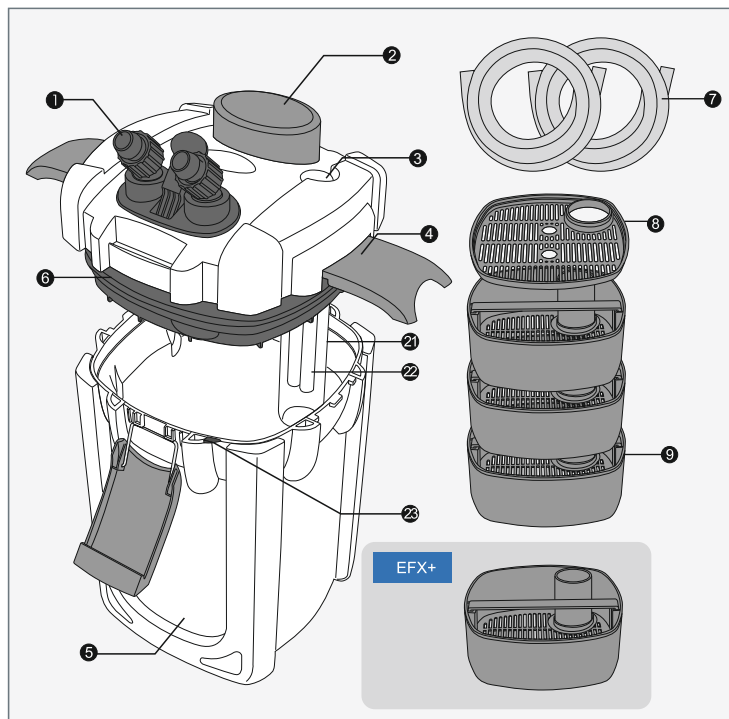


Note: Never look directly at the UV light – the filter's safety switch will turn the bulb off when you remove the filter head but always unplug your filter before removing the head as a precaution.

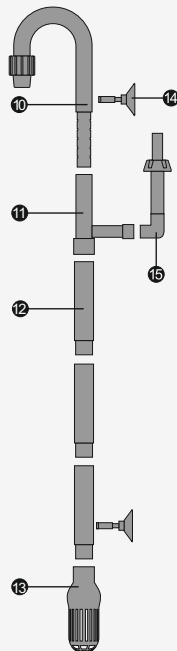
- ① Turn the UV quartz until you can see the UV quartz clips line up with the gaps, pull the quartz away from the EF filter head.
- ② Remove the UV bulb and replace.
- ③ Re-insert the UV quartz and turn to lock it in place.

Important! Check regularly that your UV light is operational by looking at the UV light indicator located on the top of the motor head. Always change your UV bulb every six months regardless of it working or not, as its performance will lessen by this stage.

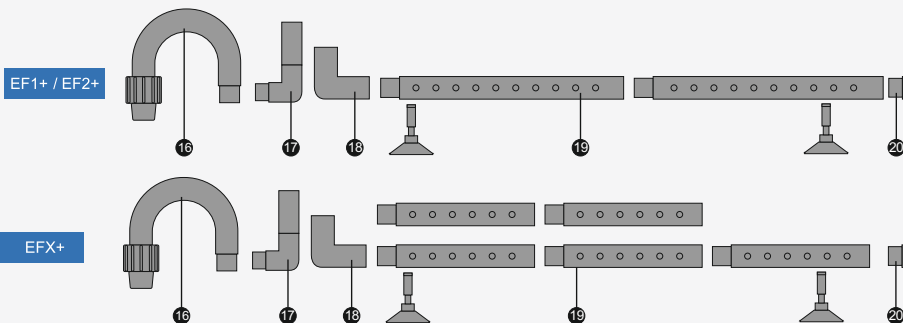
PARTS DIAGRAM



INLET PIPEWORK



OUTLET PIPEWORK



1	INLET/OUTLET TAPS & O-RING'S	7	HOSE (1.8MX2)	13	INLET STRAINER	19	SPRAY BARS
2	PRIMING BUTTON	8	MEDIA SECURE PLATE	14	SUCTION CUPS	20	SPRAY BAREND CAP
3	FILTER HEAD	9	FILTER MEDIA BASKETS	15	SURFACE SKIMMER	21	UV QUARTZ TUBE
4	HEAD/BODY CLIPS	10	CURVED INLET PIPE	16	CURVED OUTLET PIPE	22	UV BULB
5	FILTER BODY	11	SKIMMER CONNECT PIPE	17	SPRAY BAR L BEND 1	23	UV SWITCH / INDICATOR
6	HEAD O-RING	12	INLET DOWN PIPE	18	SPRAY BAR L BEND 2		

TROUBLESHOOTING

No Motor Operation

- 1 Check power supply is connected and turned on.
- 2 Check impeller is correctly installed, undamaged and free from blockages.
- 3 Check cable for damage - if damage is evident, unplug the unit and do not use the EF. Do not attempt to fix, consult an electrician or other qualified person.
- 4 Replace fuse if necessary.

Priming Problems

If air remains trapped in the system after initial setup, please restart the process and follow these guidelines:

- 1 Check all hosing and pipework is connected correctly, air tight and unrestricted.
- 2 Reinsert the Inlet / Outlet tap (part 1) to be sure it is securely installed and set to open (lever down).
- 3 Ensure all Inlet / Outlet pipework connection points are fully submerged whilst priming.
- 4 Fill the EF filter body (part 5) with aquarium water, this will aid the priming of the EF.
- 5 Prime the EF without the surface skimmer (part 15) attached - this can be re-attached after priming.
- 6 Ensure the EF filter body (part 5) is not over stocked with media and foam as this can restrict water flow and affect the priming function.

No Motor Operation

- 1 Ensure the EF Impeller is correctly installed, undamaged and free from blockages.
- 2 Follow the 'Priming Problems' troubleshooting above.

Restricted Water Flow

- 1 Ensure the EF Impeller is correctly installed, undamaged and free from blockages.
- 2 Check all hosing (part 7) and pipework are connected correctly, air tight and unrestricted.
- 3 Check the EF filter body (part 5), filter media, hosing (part 7) and all pipework for a build up of restrictive waste and clean if required.

UV Indicator Not Lighting Up

- ❶ If the UV indicator on top of the EF filter head is not lighting up, disassemble the EF and remove the UV bulb from the EF filter head. Visually inspect the bulb to check that no filaments have broken inside the UV bulb.
- ❷ Re-insert the UV bulb, ensuring that it is seated correctly in its hold and re-assemble the EF, test the UV bulb again by pressing the red switch on top of the EF filter head.
- ❸ If the UV indicator is still not lighting up it is recommended to try a new UV bulb.
- ❹ If the UV indicator light still does not light up with a new UV bulb inserted, we recommend you contact the supplier of the EF filter.

SPECIFICATIONS

MODEL	EF1+	EF2+	EFX+
FLOW RATE	1000 L/H	1400 L/H	2000 L/H
HOSE OUTSIDE DIAMETER	20mm / 0.8"	20mm / 0.8"	25mm (1")
HOSE INSIDE DIAMETER	15mm / 0.6"	15mm / 0.6"	18mm (0.7")
HOSE LENGTH	1.8 Metres x 2	1.8 Metres x 2	1.8 Metres x 2
WATER VOLUME	8 Litres (Approx)	12 Litres (Approx)	20 Litres (Approx)
HEIGHT MAX	1.4 Metres	2.0 Metres	2.5 Metres
VOLTAGE	220-240v	220-240v	220-240v
POWER	15w	30w	45w
DIMENSIONS	395mm x 232mm x 232mm	440mm x 258mm x 258mm	490mm x 290mm x 290mm
UV POWER	9w	9w	9w

WARRANTY

The All Pond Solutions external filter range is guaranteed against defects in material or workmanship under normal aquarium usage and comes with 12 months warranty for all electrical parts. The warranty period commences from the date of purchase.

If you require support on how to use your unit, replacement parts or if your filter develops a fault during the warranty period, please contact the supplier of your unit.

Non-replaceable, non-perishable and non-serviceable parts will be repaired or replaced free of charge, once the unit is returned with all components along with a valid proof of purchase and postage paid. We reserve the right to replace or repair the unit at our discretion.

Please be aware that perishable parts that are subject to normal wear and tear, such as impellers, impeller covers, motor seals and UV bulbs, are not covered by your warranty and a charge may be required for replacements of these.

This warranty does not apply to any unit that has been subjected to misuse, accidental damage, negligence, tampering or customisation. It does not apply to units which have been assembled incorrectly, improperly maintained, or where the instructions and safety information in this manual has not been followed correctly.

No liability is assumed with respect to loss or damage to livestock or personal property irrespective of the cause thereof.

Please ensure that only genuine All Pond Solutions components are used when completing a replacement or repair. Spare parts are available at our official website or from your local supplier.

Before returning your unit under warranty terms, check that all setup and maintenance instructions have been correctly followed. If you are in doubt, please contact your local aquatic retailer for further advice before returning the product.

This does not affect your statutory rights.



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