

Interpet 

# River·Reef

## LED

COMPLETE AQUARIUM KIT

48 litre & 94 litre instruction manual  
and aquarium set up guide



CREATE

EVERYTHING YOU NEED TO GET  
STARTED WITH YOUR AQUARIUM



# River·Reef LED

Thank you for purchasing this River·Reef LED Complete Aquarium Kit. Interpet has applied over sixty years of aquatic experience to ensure every element of the design of this product has been carefully considered to ensure you enjoy aquarium keeping.

**Please retain this manual for on-going care and future reference.**

We are sure that this aquarium will enable you to fully enjoy the benefits of owning and looking after aquarium fish and plants.

**This River·Reef LED aquarium is supplied with:**

- An **Integrated, 4 chamber filter system** which is easy to use and keeps the aquarium water clear and healthy for your fish.
- A **Deltatherm** heater which acts like a central heating system to maintain a stable water temperature for tropical fish.
- An easy start aquarium kit in the form of two essential Interpet water care treatments:-
  - **Tapsafe** which makes tap water safe for use in aquariums
  - **Filter Start** which establishes the essential biological cycles in the filter that eliminates harmful fish waste

For details on how to use all these essential components please refer to the individual instructions supplied.

## Contents

- Getting to know your aquarium
- Setting up your aquarium
- Things you need to know about starting an aquarium
- On-going care of your aquarium
- Top tips
- Troubleshooting
- Guarantee and safety information

## Section 1 - Getting to know your aquarium



1 **Glass Aquarium**  
48 litres/94 litres

2 **Aquarium hood**

3 **Lighting:**

River-Reef 48 = 2 x Double Bright White  
2 x 7 x 0.2w  
1 x 7 x 0.2w Blue Moon LED

River-Reef 94 = 2 x Triple Bright White  
3 x 9 x 0.2w  
1 x 9 x 0.2w Blue Moon LED



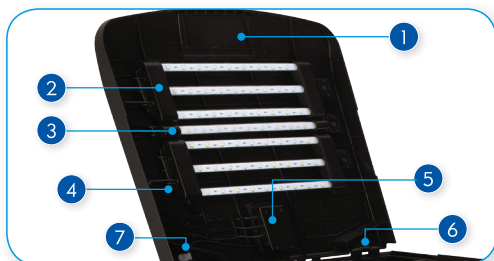
4 **Integrated, 4 chamber filter system**

5 **Deltatherm heater:**  
River-Reef 48 = 100 Watts  
River-Reef 94 = 150 Watts

6 **Tapsafe**

7 **Filter Start**

## Under the lid

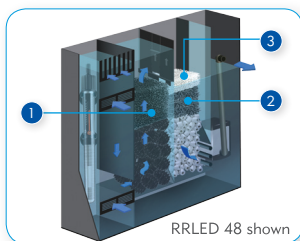


No.	Part Description	Quantity	Spare Code
1	Feeding Flap	1	N/A
2	Bright White LED Bars	2	48: 0419 94: 0420
3	Blue Moon LED Bar	1	48: 0421 94: 0422
4	LED Holding Clips	6	N/A
5	LV Lighting Power Hub & Switches	1	N/A
6	Removable Metal Hinges	2	36630
7	LV transformer	1	48: 0423 94: 0424

\*LV = Low Voltage

## Integrated, 4 Chamber Filter System

No.	Part Description	Quantity	Spare Code
1	Black Coarse Foam	1	48: 2124 94: 2125
2	Activated Carbon	1	48: 2121 94: 2123
3	White Polymer Wool Pad	1	48: 2121 94: 2123



### 1. Heats – multi level heater chamber.

1st chamber houses the Interpet Deltatherm heater and also acts as a surface skimmer with the multiple prong design that prevents fish entry.

### 2. Clears – sedi-sphere's™ and black course foam.

Sedi-sphere's™ are designed to ensure that large particles will drop out

of suspension and settle in the second chamber. Black coarse filter foam traps this particulate waste whilst allowing good water flow.

### 3. Purifies – white polymer wool pad, activated carbon & high surface area ceramic biological media.

The white polymer wool pad then filters out the finest particles for crystal clear water and is in a convenient position for replacing every 28 days. Dissolved organic dyes which cannot be removed by the mechanical filtration cause yellow discolouration of the aquarium water. The activated carbon will effectively remove these dyes and should be replaced once a month.

The high surface ceramic cylinders are an ideal environment for essential beneficial bacteria to populate and grow, these safely process the toxic waste – ammonia and nitrite excreted by livestock and the breakdown of organic waste in the aquarium.

### 4. Circulates – circulation pump.

The 4th chamber houses the circulation pump that circulates the aquarium in excess of 10 times per hour.

#### Top tip...

For planted aquariums it is suggested that the water is diverted away from the surface of the aquarium, in order to ensure beneficial carbon dioxide ( $\text{CO}_2$ ) is not diffused out of the aquarium too quickly.

### Installing a Salt Water Protein Skimmer

To install a saltwater skimmer it is necessary to lower the water level to fit the skimmer collection cup above the water surface. This is achieved in the third chamber by installing and adjusting the optional “skimmer weir gate” see FIG 1 and FIG 2.

The water level in the third chamber can be controlled by raising or lowering the weir gate. Install your micro (RR48) or nano (RR94) skimmer and drop the water level to the recommended level (marked on the product) for optimum skimming.

FIG 1

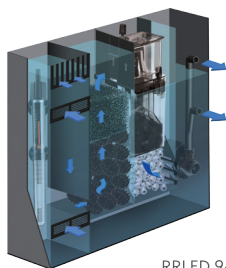
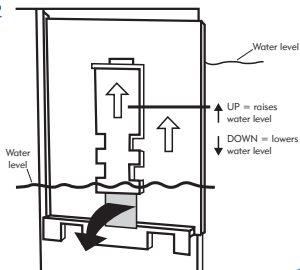


FIG 2





## Section 2 - Setting up your aquarium

Unpack all of the items in the box and check everything is present against the parts list in section 1.

Ensure the aquarium is placed on a level surface suitable for bearing the weight of a full aquarium (e.g. River-Reef LED 48 litre will weigh over 70kg when full); the matching River-Reef LED cabinets are specifically designed for this purpose and are essential to validate the aquarium guarantee.

Position the aquarium on its cabinet where you can get maximum enjoyment from watching your aquatic habitat. However, the aquarium should NOT be placed:

- In direct sunlight,
- Areas of extreme temperature variations i.e. next to a radiator,
- Areas subject to loud noise, vibration or a lot of movement e.g. by a loud speaker or in the hall way

### Step 1 - Adding substrate and décor to your aquarium

Ensure you wash your choice of aquarium substrates (gravel or aquarium base) before adding it to the aquarium as most gravel contains large quantities of dirt which will cloud the water.

Also pre-wash or soak wood or ornaments before adding them to the aquarium. Do not use any soap or cleaning liquids other than plain tap water for this job.

### Step 2 - Installing your Deltatherm heater

The heater supplied is factory set at 24°C, the ideal temperature for most tropical and marine fish, but can be set to any temperature between 16 and 34°C by using the adjustable thermostat on the top of the product.

Attach the Deltatherm heater on the back glass in the heater chamber (chamber 1) of the aquarium using the sucker mounted brackets supplied. Ensure the heater will be fully submersed at all times.

### DO NOT PLUG THE HEATER IN YET!

The Deltatherm heater should never be turned on out of water and cold water should never be applied directly to a hot heater as in both cases this will cause the glass to crack.



#### Top tip...

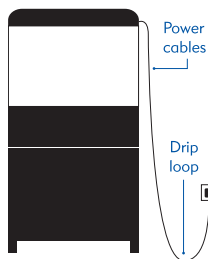
...Always unplug your heater before carrying out any water changes. Only plug it back in when the aquarium is refilled and the heater is fully submersed.

Plug in (but do not turn on) the transformer for your River-Reef LED aquarium, push fit the low voltage plug into the power in socket on the back of the aquarium.

#### Important Safety Information

To prevent any drips entering the electric sockets, create a drip loop for the heater, pump and low voltage cables as per the diagram (right).

#### Create a drip loop



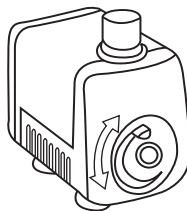
#### Step 3 - Setting up your Integrated, 4 chamber filter system

Your Integrated 4 chamber filter system comes pre-installed; the bio media and activated carbon bag must be removed from their polythene bags and washed thoroughly.

The plugs for the electrical equipment fit through the cut out sections on the right and left bottom sides of the aquarium hood. However should you wish to remove the hood for any reason it can be easily done by using a pair of long nose pliers to remove the metal hinges (part 6).

The flow rate for River-Reef LED 48 can be adjusted as per FIG 3.

FIG 3



#### Top tip...

...For marine aquariums set flow rate to maximum whilst planted aquariums may benefit from a lower water rate.

Plug in your pump, but do not turn on.

**DO NOT SWITCH ON YOUR HEATER OR PUMP YET.**



#### Step 4 - Filling your aquarium

Once you have added the correct substrate for your chosen set up, you can fill your aquarium with fresh or salt water as required.

For a new Marine set up, mix the saltwater in the aquarium.

- a. Fill the River-Reef with Reverse Osmosis (RO) water.
- b. Ensure hands are dry then switch on the heater and pump.
- c. Add the required amount of salt for the size of the aquarium to achieve a salinity of 35 ppt. Refer to guidance on the salt instructions.
- d. Wait for 45 minutes and check the salinity using a hydrometer.
- e. Add extra salt or RO water as needed to reach the desired salinity.

##### Top tip...

...The warmer the RO water, the quicker the salt will dissolve. When conducting your regular water changes, use a plastic bucket or container.

If you use tap water treat it with Interpet Tapsafe supplied, this removes harmful chlorine and heavy metals (e.g. Copper). Tapsafe also adds: Aloe Vera which protects delicate fish membranes and bacteria to boost essential biological processes in the aquarium. Follow the on-pack instructions for using Tapsafe.

Once the aquarium is full you can turn on your River-Reef LED aquarium, heater and pump. These essential life support systems should remain operational at all times, apart from when you are carrying out maintenance in the aquarium when they should be unplugged for your safety.

##### Top tip...

...Tapsafe should be used whenever you use tap water to carry out water changes or top up evaporation.

#### Step 5 - Using your aquarium lights

Your aquarium is supplied with bright white 0.2w LED lights (River-Reef 48 = 2 x 7 x 0.2w; River-Reef 94 = 3 x 9 x 0.2w) and a single blue moon LED tube. These are designed to be efficient as well as create bright yet economical lighting from very low wattage LEDs.

Bright White for:

- Lush plant or coral growth without encouraging algae
- Attractive ripple effect

Blue Moon for:

- Softer, more relaxed night time viewing





Your lighting is controlled via 2 switches on the top of the hood, they both have an inbuilt automatic 'sun and moon rise' start up. Which gradually increases the light intensity to prevent sudden 'light shock', this reduces fish stress.

From left to right the switches operate: (a) Blue Moon LEDs and (b) the Bright White LEDs. These touch sensitive buttons only need to be lightly touched to operate as per FIG 4, right.

The natural photoperiod on a coral reef or in a tropical river/lake is approximately 12 hours. It is therefore advisable to run the LED lighting for 8 – 12 hours a day. To replicate this natural day/night cycle automatically, use the River-Reef LED's in conjunction with a normal 24 hour household timer. The LED power hub (part 5) is specially designed to automatically turn on the LED's once it receives power each morning via the household timer.



#### Top tip...

...To automatically run the Blue Moon LEDs separately for night time viewing, purchase a second low voltage transformer (7) and plug directly into the blue moon LED connector in conjunction with a second household timer.

### Step 6 - Freshwater Tropical Option

Your new aquarium should be allowed to settle overnight to allow the temperature to stabilise.



Then, you can start adding live plants; remove any dead or broken leaves before planting directly into the substrate.

#### Top tip...

...Take care to plan your aquarium planting (which is similar to creating a garden border) ensure that there is a variety of different height plants with the tallest at the back and shortest in the foreground. Create clumps of plants with a variety of leaf colours, shapes and textures for best effect. It is always better to start off with too many plants and thin them out later, this helps ensure algae does not have any excess food or light to establish a foot hold in the aquarium.

### Step 6 – Marine Option

Live Rock can now be added to your River-Reef LED aquarium. Live rock looks great in an aquarium but also has large benefits in being porous and already colonized by beneficial bacteria and other microorganisms which kick start the essential natural cycles and maintain healthy water quality.



You should add 1 kg (2.2lbs) of live rock per 10 litres (2.6 gallons) of tank volume. This equates to roughly 5 kilos of live rock for the River-Reef LED 48 and 9 kilos of live rock for the River-Reef LED 94 which is around 40% of the tanks volume.

**Top tip...**


...when purchasing live rock, seek advice from your retailer and try to purchase ready cured live rock or live rock from a mature aquarium. This will mean you won't need to conduct the curing process yourself which can take up to 5 weeks to complete.

It is important to think about the position of the live rock and where you want the corals to be placed, some corals will need more light than others so it's important to take this into consideration now while you create your rock structure.


**Step 7 - Introduce livestock, invertebrates and corals**

Seek the advice of your specialist aquatic retailer when purchasing livestock; they will be able to help you select a variety of livestock which will create a calm and balanced community. Ensure your retailer knows you have a new aquarium, as it is essential to add livestock gradually to a new aquarium over a period of weeks, starting with hardier varieties, and gradually building up to the aquarium's full complement of livestock.

**Step 8 - Kick start your filter**



As soon as you introduce the first few fish and or corals, add Filter Start which will help establish an effective biological process in the filter for removing harmful fish waste. Follow the on-pack instructions for using Filter Start.



**Top tip...**

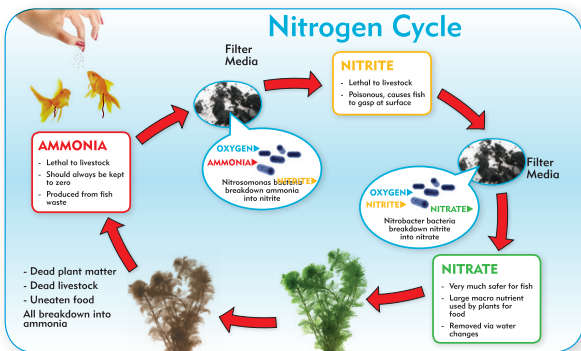
...Add Filter Start every time you add new livestock or clean your aquarium and filter to boost essential biological activity.

## Section 3 - Things to know about starting an aquarium

**The nitrogen cycle**

Before adding fish to your aquarium there is some important information to understand about how the aquarium water remains clean and healthy enough for fish to thrive.

The aquarium is a small 'closed' environment; this means harmful waste can build up quickly because there is not enough water volume to dilute the waste, as would happen in a natural lake, nor is there a constant supply of fresh water to wash it away, as would happen in a river or stream. The breakdown of fish waste, excess food, dead plant material and other organic matter will cause invisible toxic compounds to build up in the aquarium water, unchecked this would eventually harm your fish. Fortunately there is a natural process called the "Nitrogen Cycle" which we can recreate in the aquarium to convert the toxic waste into safer compounds (The diagram opposite shows how this process works).



This Nitrogen cycle is carried out by essential "Nitrifying" bacteria which set up home in the biological media in the aquarium filter. These bacteria would naturally take a couple of months to become established in the filter. During this maturing period fish keepers often experience fish losses caused by the build-up of invisible toxic compounds which is referred to as "New tank syndrome".

#### **New tank syndrome can be avoided by:**

- adding Filter Start which speeds up the maturing process
- starting with a few hardier fish varieties and adding more fish gradually over a number of weeks
- feeding sparingly in the early days to reduce biological loading
- monitoring water quality with a test kit which reveals the presence of the invisible toxins
- carrying out weekly water changes of 20% of the tank volume to dilute waste levels for the first 6 weeks.

## Section 4 - On-going care of your aquarium

#### **Other items required for on-going aquarium maintenance:**

Bucket, net, magnetic glass cleaner, gravel cleaner, fish food, aquarium test kit, hydrometer (for marine aquariums) and replacement filter media.

#### **Daily Care Routine**

- Feed fish – ideally two or three times per day as much as they will eat in a couple of minutes (remove any uneaten food) – more fish die of overfeeding than underfeeding so take it easy and make sure only one person in the house is feeding them! Seek guidance from your retailer for advice on feeding your corals and invertebrates.



- Check fish and or coral health – look for differences in appearance or behaviour that may indicate they are unwell – seek advice from your retailer if you spot any problems.
- Clean algae off the glass – the easiest way to do this is to use a magnetic glass cleaner, note: do not get any gravel in the glass cleaner as you risk scratching the inside of the aquarium.
- Always remove dead fish, invertebrates and plant matter immediately to avoid water pollution.
- Ensure the filter is working and that there is good water flow to oxygenate the water. This is good for both the fish and the bacteria in the filter.
- Check the aquarium temperature is stable at the correct level. Note:- in the summer it is possible for the water temperature to briefly rise above the temperature set on the heater thermostat this should not cause a problem for most tropical fish species.

### **Weekly Care Routine**

- Top up any water evaporation – with RO or tapwater. Ensure you treat the tap water with Tapsafe before adding it to the aquarium.
- If you have live plants, add a plant food such as Floraboo; trim back excess plant growth and remove any dead leaves.
- For a Marine set up, you will need to closely monitor the water parameters. This includes testing pH, Alkalinity, Salinity, Calcium, Magnesium, Phosphate and Ammonia levels. Speak with a reputable Marine retailer and purchase the necessary test kits and hydrometer, always follow the instructions carefully and treat the water as needed with recommended supplements.
- Clean the LED tubes and the outside of the aquarium with distilled or RO water (steam iron water) and dry them with a clean, soft cloth. Do not use chemical cleaning products, abrasive cloths, sprays or soaps.
- For tropical set ups, use an Interpet Test kit to reveal any water quality problems; these are mostly invisible to the naked eye.

### **Monthly Maintenance Routine**

- Carry out a 25% water change.
- Remove and discard the old activated carbon bag, replace with a new River-Reef activated carbon bag. This is located in chamber 3.
- Remove and discard the old polymer wool pad, replace with a new River-Reef polymer wool pad. Also located in chamber 3.
- Clean the sedi-spheres™ and black course foam in old aquarium water and then reinsert into chamber 2.



### Three Monthly Care Routine

- Turn off power to the pump and remove from chamber 4 inside the aquarium. Then unclip the intake cage (1) and clean in fresh water. (See FIG 5 for 48 pump and FIG 6 for 94 pump)
- Then remove the impeller cover (2) and impeller from the pump motor (3). Clean the impeller and the inside of the motor with water and a small brush. Then reverse this process to reassemble and install back the pump into the chamber 4.

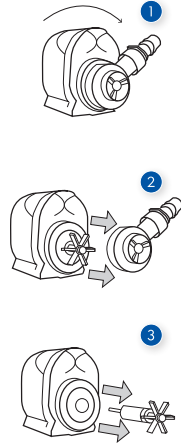
### Annual Maintenance Routine

- put a reminder in your diary to help you remember:
- Replace filter pump impellor to maintain optimum performance.

FIG 5



FIG 6



## Section 5 - Top tips for a beautiful and healthy aquarium

1. Locate your aquarium in a suitable position for the benefit of the fish and plants, and for your maximum enjoyment.
2. Select the correct amount and correct species of fish for a balanced and calm community.
3. Care for your water; do all the recommended water changes, filter cleaning, tests and feed correctly, taking special care in the early days or when adding new fish.
4. Don't rush the early days, start slowly and carefully for long term success.
5. ENJOY YOUR AQUARIUM!

See online for further information on all aspects of keeping an aquarium and fishkeeping or join others in our Facebook community: [www.facebook.com/interpet](http://www.facebook.com/interpet)



## Section 6 - Troubleshooting

### **Problem 1: Filter flow rate drops considerably**

Solution 1: Check the impellor (see problem 2).

Solution 2: Check filter media has not become blocked – clean/replace as necessary.

### **Problem 2: Filter pump is noisy**

Solution 1: Check that the filter has not blocked and is preventing sufficient water reaching the skimmer or pump chamber leading to the pump running dry. Clean/replace filter media to resume normal water flow.

Solution 2: The impellor should be removed and carefully cleaned, see three monthly care routine. Once the impellor has been cleaned it should be inspected for any damage. If the impellor or magnet is damaged in any way, the impellor should be replaced.

### **Problem 3: Power cut**

Solution 1: Any interruption of more than 2-3 hours of the water supply through the filter will cause the bacteria in the filter to die. Should this occur, do not simply re-start the filter. You must thoroughly clean ALL the filter material before you start the filter again. In an aquarium fully stocked with fish or corals, this may lead to water quality problems. Use test kits to monitor water, Ammonia Remover & Filter Start products to manage the water quality.

### **Problem 4: Water will not stay crystal clear**

Solution 1: Check to ensure the filter is working correctly, inspect the white polymer wool pad to see it is correctly positioned or needs replacing.

Solution 2: Additionally you may consider using Interpet Filter Aid which clumps together the fine particles and allows them to be removed more effectively by the filter. Additionally cut down on feeding levels for two to three days and ensure you perform monthly water changes.

### **Problem 5: Why has the LED lighting stopped working**

Solution: Check all plugs are firmly pushed into sockets. Check connection of low voltage plug in back of hood. Check mains power supply has not been interrupted.

### **Problem 6: Why is the LED light output reducing / failing**

Solution: Refer to problem 5, if this does not work the LED lighting tube is nearing the end of its life span and will need replacing. Refer to section 1 for the relevant Interpet spare codes and purchase a replacement tube from your local aquatic retailer.

## Guarantee

All River-Reef LED aquariums are guaranteed for 12 months from the date of purchase providing the following conditions are met.

Never place polystyrene under the bottom frame of this aquarium.

Your aquarium must be sited on a surface that is flat and level and able to withstand the weight of the aquarium when filled with water, gravel etc. Note: 1 litre of water weighs 1kg)

Wrought iron and angle iron stands, together with video, HiFi, TV cabinets, articles of furniture and self-assemble furniture are NOT suitable for use with River-Reef LED aquariums, doing so will automatically invalidate this guarantee. It is the responsibility of the purchaser to ensure that when using an aquarium stand it has been designed for use with an River-Reef LED aquarium i.e. The top support of the stand should be in contact with the entire bottom frame of the aquarium.

You must use the correct Interpet stand so as not to invalidate your guarantee.

All aquarium/stand locations should take into account the position of floor boards/joists etc., bearing in mind the weight to be supported.

The sealant on the aquarium must not come into contact with any chemicals (i.e. Household bleach etc.) or sharp objects such as rocks and razor edged algae scrapers. Normal aquarium treatments and fish medications used for the purpose of fish keeping do not affect the aquarium silicone.

**IMPORTANT SAFETY ADVICE:** Never site your aquarium over electrical appliances and never lift the aquarium by the top frame (if fitted) or by any part of the bracing system.

**DO NOT try to lift or move the aquarium when it contains water.**

This guarantee covers leakages arising from either faulty materials or workmanship. We cannot be responsible for breakages of glass.

This guarantee does not apply to any unauthorised modifications or misuse, improper or inadequate maintenance, or operations outside the product specifications. In case of defect within the stated guarantee period, the products should be returned, with proof of purchase, to the point of purchase.

This guarantee does not effect your statutory. Guarantee service includes repair or replacement of the aquarium or filter at Interpet Ltd.'s discretion. Neither Interpet nor the manufacturer are liable for any direct, indirect, special, incidental or consequential damages, including loss of livestock, arising from a defect in this product.

## Important Safety Information

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

### READ AND FOLLOW ALL SAFETY INSTRUCTIONS

**DANGER:** To avoid possible electric shock, special care should be taken since water is employed 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.

This is for indoor use only – do not use outside. Do not use this unit if the cable or plug are damaged or appear to be malfunctioning, or if it is dropped or damaged in any manner. Do not use this unit if the plug gets wet. Refer to section 2 of this instruction manual to find out how to create a drip loop for both the heater and filter.

Dispose of responsibly following instructions from your local authority. Close supervision is necessary when any appliance is used by or near children. Do not install or store the appliance where it will be exposed to the weather or to temperatures below freezing point. If an extension cord is necessary, a cable rated with a proper rating should be used. A cable rated for less amperes or watts than the appliance rating may cause the appliance to overheat. Care should be taken to arrange the cable so that it will not be tripped over or pulled.

### SAVE THESE INSTRUCTIONS

Disposal of used Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)  
This symbol on the product or on its packaging indicates that the product must not be disposed of with normal household waste. Instead, it is your responsibility to dispose of your waste equipment by arranging to return it to a designated collection point for the recycling of waste electrical and electronic equipment. By separating and recycling your waste equipment at the time of disposal you will help to conserve natural resources and ensure that the equipment is recycled in a manner that protects human health and the environment. For more information about recycling this product, please contact your local city office, your household waste disposal service or the shop where you have purchased the product.



## Easy Test Health Tablet Test Kit

Complete with tablet tests for ammonia, nitrite, nitrate and broad range pH, along with 2 plastic test vials and a tablet crusher. An effective and simple way for you to test your aquarium water, ideal for new aquarium set-ups.



## Marine Upgrades



### Kent wave maker

Powerful, easy fit Wave Maker pump replicates the essential water movement of the natural reef environment.

### River-Reef LED 48



### Micro Skimmer

A skimmer can be installed in the 3rd chamber of the filter to continuously remove unwanted waste product from the aquarium, ensuring a healthy marine environment.

### River-Reef LED 94



### Kent Nano Skimmer



Interpet has applied over 60 years of aquatic experience to ensure every element of the design of this product has been carefully considered to help you enjoy aquarium keeping.

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