



# INSTRUCTION MANUAL TRIGON 190 / TRIGON 350



[www.juwel-aquarium.com](http://www.juwel-aquarium.com)

# Introduction

Thank you for choosing a JUWEL Aquarium product.

Our products represent over 50 years experience in the manufacturing of aquariums and their accessories applying most modern production techniques bringing together the JUWEL Aquarium system, which is both easy to use and simple to maintain.

Please read this instruction manual carefully and completely to make sure you have received all components before setting up the aquarium. Please observe the safety instructions and maintenance guidelines given in this manual.

This instruction manual has been carefully prepared to provide you with accurate and complete information. All efforts have been made to ensure that the information given is correct. However, we cannot accept responsibility for printing or other errors. Technical details are always approximate and are not warranted characteristics and may be subject to change without notice.



## SAFETY INSTRUCTIONS:

- 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 if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- The power plugs of the electrical devices must not become moist. Connect the power plugs to the power supply at such a height that the connection cable forms a loop which would enable the water to drip down.
- At all times, only operate the electrical devices for your aquarium (lighting, heater, pump etc.) using an earth leakage circuit breaker (EL circuit breaker) with a maximum tripping current of 30 mA. If the socket that you are using in your home installation is not safeguarded with such a circuit breaker, please use a commercially available power strip with an integrated earth leakage circuit breaker.
- The electrical devices may only be operated in rooms.
- Pull the power plug of all devices operated in water before coming into contact with the water.



This product fulfils the guidelines issued by the European Union (EU) and is therefore entitled to carry the CE mark.  
[www.juwel-aquarium.de/en/declaration-of-conformity/](http://www.juwel-aquarium.de/en/declaration-of-conformity/)

## Setting up the Aquarium

**We have produced your JUWEL Aquarium with the utmost care using most advanced production techniques. Extra strong packaging has been used to prevent damage to the aquarium. Please note however, that your aquarium has been transported and handled several times prior to reaching its final destination. We recommend therefore, that you test the aquarium for leaks in a suitable area (e.g. garage), by filling it with water and checking it very carefully.**

Having made your checks, you should select the most suitable and desirable position for your aquarium. The position selected should have an even and level surface and should be able to support the weight of the filled aquarium. In order to prevent excessive algae growth, we recommend that you select a position that is not exposed to direct daylight.

We strongly recommend that the appropriate JUWEL Aquarium cabinet is used. They have a water-repellent surface and they have been made to match the dimensions and to bear the weight of the filled aquarium. The cabinet must be positioned on a level surface. The JUWEL Aquarium is built with a special bottom frame for security. The aquarium should be placed directly onto the cabinet. **DO NOT** place any additional support, e.g. polystyrene, under the aquarium since this is not necessary with our aquariums.



## Weight of the aquarium in kg filled with water:

Aquarium	Weight
Lido 120	141 kg
Lido 200	225 kg
Rio 125	134 kg
Rio 180	189 kg
Rio 240	262 kg
Rio 300 / 350	396 kg
Rio 400 / 450	498 kg
Vision 180	185 kg
Vision 260	311 kg
Vision 450	517 kg
Trigon 190	225 kg
Trigon 350	387 kg

### Notice:

- Please ensure that any air stones or similar aeration devices used are placed in the centre of the aquarium. The use of such equipment may cause water to splash and condense on the lighting unit and frame, which may then run down on the outer wall of the aquarium. The occurrence of such effects does not constitute a defect in the product.
- Do not transport the aquarium when full.
- Make sure that maintenance of the aquarium does not damage the bonding.
- Do not use any toxic substances to clean the aquarium.

### There is a bulge in the silicone on the bottom of your aquarium - do you need to be concerned?

**This bulge in the silicone seam is harmless.**

Our aquariums are produced using robot-supported processes. This includes the automated application of silicone to the bottom pane. The bulge is merely a point where the applied silicone seams overlap, which is necessary for production.

**This does not affect the leak-tightness of your aquarium. You can use the aquarium without any reservations.**

### **TIPP** JUWEL Backgrounds

For decorative designs on the rear wall of your JUWEL aquarium, we recommend the JUWEL rear walls and posters for various sizes of aquariums.

#### **JUWEL rear wall motifs**

With an attractive 3D rock motif that creates a powerful impression of depth.

#### **JUWEL textured rear walls**

With an attractive and distinctive bark texture.

#### **Juwel Conexo Adhesive**

The JUWEL motif and structure back panels are affixed to the rear wall of the aquarium using the special Conexo silicon before it is filled with water.

#### **JUWEL Posters**

JUWEL Posters are printed on both sides and provide attractive motifs to create a simple and highly effective background design for your aquarium. With JUWEL Poster Fix, your JUWEL Poster can then be perfectly applied to the back of your aquarium and can be easily removed if necessary at a later date.

These JUWEL accessories are available from your specialist retailer.



## Set-up suggestions for JUWEL aquariums

Let our sample designs inspire you; set up your aquarium in just a few steps.

Follow our step-by-step instructions to create wonderful underwater worlds. Naturally all our suggested set-ups can be used in every JUWEL aquarium. Watch the corresponding set-up video on our website and download the step-by-step set-up plan as a PDF file.

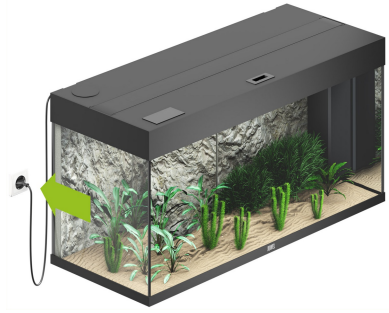
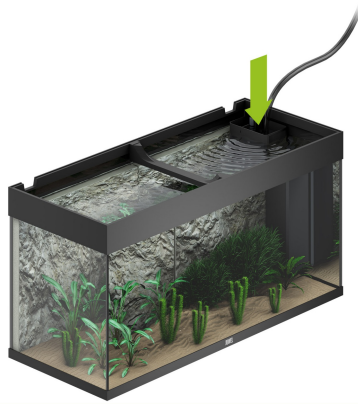


## Setting up your JUWEL Aquarium

Perform the following steps when putting the aquarium into operation:

1. Assemble the cabinet if necessary.
2. Arrange the inspected aquarium in a suitable place.
3. Affix the JUWEL structured backgrounds if necessary, please observe the drying time of between 48 and 72 hours.
4. Prepare the filter for operation as described in the chapter "Putting the JUWEL filter system into operation".
5. Complete the decoration with ground material etc. as desired.
6. Plant the short plant species in the aquarium if applicable.
7. Slowly fill the aquarium with water through the filter to half way up.
8. Plant higher plant species in the aquarium if applicable.
9. Slowly fill the aquarium with water through the filter up to the water level line.
10. Connect the circulating pump and the heater to the power supply.
11. Install the lamp unit and connect it to the power supply.
12. If appropriate, close the aquarium with the designated flaps.
13. We recommend introducing fish in steps. You may put in the first fish (4-5) after a few days. These also ensure that the biological filter develops. The run-in period of the filter may last 6 - 8 weeks. You may increase the number of fish in steps during this time.





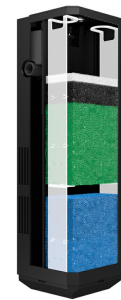
## The JUWEL filter system Bioflow

The JUWEL filter system Bioflow is a highly effective biological filter system with two stages that includes components complementing each other in an ideal manner. Installing the filter in the aquarium makes hose connections unnecessary and prevents leaks. The pump output is not negatively affected by hose couplings, intake tubes etc.

The capacity of the pump is designed in such a manner that an ideal level of biological filtering is ensured by a sufficient level of percolation through the filter material.

In that context, the large filter volume ensures excellent mechanical filtering and facilitates long cleaning intervals.

The construction of the filter system enables you to quickly access the individual heater, pump, and filter media components. This way, the filter system may comfortably be operated during cleaning and while performing maintenance work.



Bioflow Super



Bioflow M, L, XL

All Bioflow filter systems are delivered with five top-quality filter media:

**1. bioPad – filter wadding (white)**

The fleece wadding acts as a mechanical pre-filter. It stops coarse dirt, such as dead plant parts, from penetrating deeper into the filter.

**3. bioCarb – activated carbon sponge (black)**

The sponge containing bound activated carbon removes toxins from the water, e.g. harmful heavy metals and organic impurities.

**5. Nitrox – nitrate remover (green)**

The sponge contains micro-organisms that are able to break down nitrates. The JUWEL filter offers a particularly good environment to this end.

**6. bioPlus coarse – coarse filter sponge (blue)**

The coarse-pored filter sponge in the middle of the filter causes the biological clarification of the water through the accumulation of bacterial cultures.

**8. bioPlus fine – fine filter sponge (blue)**

The fine-pored filter sponges in the lower section of the filter retain even the smallest suspended particles and ensure crystal-clear water.

Other optional filter media round off the options that are available for the optimum use of your JUWEL inside filter:

**2. Between 1. & 2. bioBoost – filter accelerator**

JUWEL bioBoost immediately activates new filter media and accelerates the filtration performance in your aquarium. It promotes the vitality of fish and plants.

**7. Amorax – ammonium remover**

Amorax is a highly efficient filter medium made of natural zeolite. It quickly and effectively binds ammonium, thereby preventing the formation of ammonia and promotes the vitality of your fish.

**4. Carbox – highly effective activated carbon**

Carbox's excellent absorption properties permanently and quickly bind discolourations, odours and toxic substances and ensure crystal-clear water.

**7. Cirax – ceramic granules**

Cirax is a biological filter medium which creates the perfect colonisation conditions for useful bacteria, due to its large, highly porous surface.

**7. Phorax – phosphate remover**

JUWEL Phorax is a highly effective filter medium used to break down phosphates in your aquarium. This effectively reduces the growth of algae and can contribute to improved plant growth.



## Getting Started - The JUWEL filter system Bioflow M, L, XL

You should prepare the filter for operation prior to setting up the aquarium. However, do not connect the electrical components to the power supply yet.

Please observe the following notes regarding commissioning the JUWEL filter system Bioflow:

The JUWEL filter system consists of:

- 1 heater (included in complete aquariums only)
- 1 heater holder
- 1 pump
- 1 outlet nozzle
- 2 filter basket
- 3 sets of white filter wool - bioPad, packaged
- 1 carbon sponge - bioCarb, packaged
- 1 green nitrate remover sponge - Nitrax, packaged
- 1 blue filter sponge - bioPlus coarse
- 2 blue filter sponges - bioPlus fine

1. Insert the base of the pump into the pump holder of the filter and firmly push it into position. In that context, the pump outlet faces in the direction of the outlet opening.

Confirm the proper arrangement of the gasket in the outlet opening (it is used to minimize the transmission of vibrations).

2. Carefully attach the outlet nozzle from the outside through the opening to the pump outlet and ensure its firm connection.

3. Insert the heater holder into the guide rail of the filter separation wall.

4. Insert the heater from above into the heater holder.

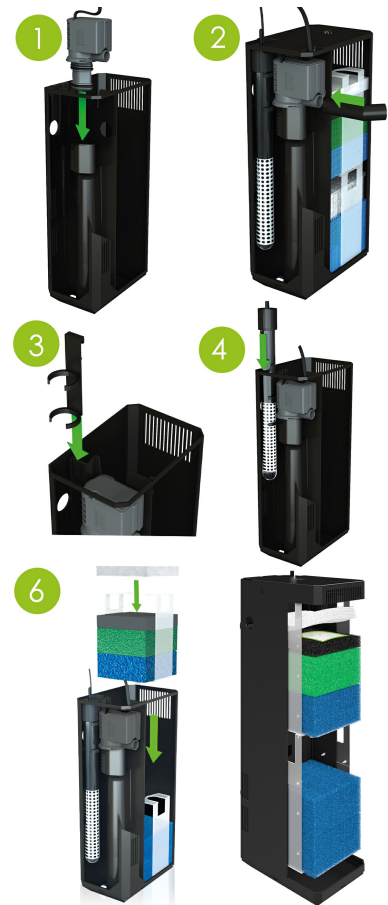
5. Now start preparing the filter sponges by removing the plastic packaging from the carbon sponge and the nitrate remover sponge. Thoroughly rinse the blue filter sponges only under running water.

6. After this, insert the blue "fine" filter sponges into the lower filter basket.

Following that, place the blue "rough" filter sponge, the green nitrate remover sponge, the carbon sponge, and filter wool in the top position into the upper filter basket and push both filter baskets into the filter housing.

7. Place the filter cover on the filter housing.

8. The JUWEL filter system Bioflow is now ready for operation.



**The JUWEL Aquarium Filter System is a biological filter system. For it to work effectively, bacteria cultures will need to grow inside the blue sponges. This process can take up 6-8 weeks for the filter to fully mature. Consequently we recommend to decorate and plant the aquarium and add just a few (3-5) hardy fish in order to help the maturation process. Please test the water on a weekly basis to monitor the water conditions and once the water is safe you can begin to add more fish.**

### Run-in period of your JUWEL Bioflow filter system

The run-in period varies between different aquariums and it depends on many factors.

The type and number of plants and the ground material used are of central importance in this context. Depending on your stock and the size of your aquarium, this phase may take between two and eight weeks. Please do not clean the filter during the run-in period (except bioPad filter wadding). Allow the time required for the bacteria to establish themselves in the filter media.

**Before adding fish to your aquarium, please make sure to seek comprehensive consultation from your specialist retailer, regarding your individual run-in period.**

**TIPP Notice:**

The use of JUWEL bioBoost at the beginning and at every (partial) water change will shorten the running-in phase of your JUWEL Aquarium inside filter.



**i JUWEL FilterGrid**

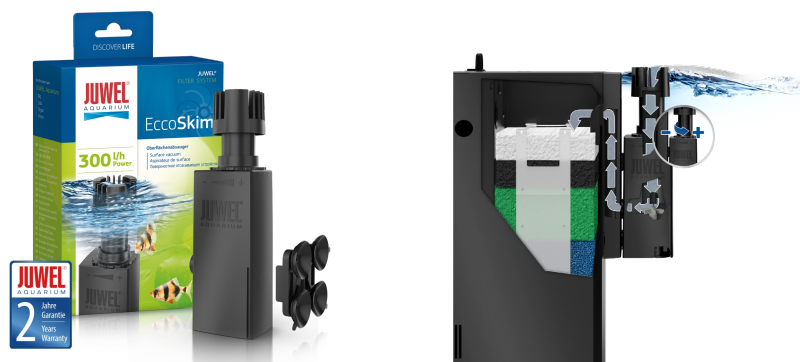
The JUWEL FilterGrid prevents very small shrimp and fish from entering the JUWEL Bioflow Filter.

The JUWEL FilterGrid is available as an original accessory (Article Number 87099) for JUWEL aquariums.



**Notice:**

JUWEL EccoSkim combines the benefits of a surface skimmer with a compact design and great adjustable surface-skimming capacities. With a performance of 300 l/h at a consumption of only 4.5 W, the JUWEL EccoSkim guarantees effective surface skimming for freshwater and salt-water aquariums. Film and other surface-active substances are effectively removed and conveyed to the JUWEL filter system and stored there. This can be ordered from your JUWEL Aquarium retailer (Part No. 87025).



**i Recommendation**

**OxyPlus - O2 Air Diffuser**

The special OxyPlus - O2 Air Diffuser provides additional oxygen to the aquarium if desired. This can be ordered from your JUWEL Aquarium retailer (Part No. 85145).





# Care and maintenance of the JUWEL Filter System

The JUWEL Filter System requires very little maintenance if you follow the following instructions.

## bioPad

Replace the white filter wool pad once a week. If you have large fish, then this may require changing slightly more frequently. This will ensure that the filter sponges will not be clogged by larger dirt particles.

## bioCarb

Replace the black activated carbon sponge every 4-6 weeks. Again, if you have large fish then this may be to be more frequent. This ensures that any chemical impurities from the water will be removed. Please note that the chemicals which are absorbed by the activated carbon contained in the sponge, will be released to the water again if the change intervals are too long.

## bioPlus coarse/bioPlus fine

If the filter wool and the activated carbon sponge are replaced as suggested, then it is sufficient to carefully clean or replace the coarse blue sponges at 6-12 weeks and the fine blue sponges at 3-9 months only.

- Cleaning or replacing the blue sponges or the Cirax filter medium affects the impact of the bacterial culture. For that reason, it is recommended not to clean or replace the blue sponges and the Cirax filter medium at the same time, but rather successively in an alternating manner.

You do not need to worry about the liquid dirt accumulating at the bottom of the filter housing. Normally, this dirt contains important biological substances which enhance the water quality.

Please do not worry if some dirt gets into the water during the cleaning process causing cloudiness. After the filter system is back in operation, the water will soon clear again.

## Nitrax

In order to allow a proper level of micro-organisms in the filtration system it is recommended to exchange the sponge every 8 weeks. The nitrate removal sponge contains bacteria, which will after a while reduce the nitrate level in the aquarium significantly.

## OPTIONAL:

### BioBoost

JUWEL bioBoost immediately activates new filter media and accelerates the filtration performance in your aquarium. It promotes the vitality of fish and plants. After 4 weeks, the bag with the nutrient residues can be removed or replaced, if required.

### Amorax

Amorax is a highly efficient filter medium made of natural zeolite. It quickly and effectively binds ammonium, thereby preventing the formation of ammonia and promotes the vitality of your fish. Replace the JUWEL Amorax every 3 months.

### Carbax

Carbax's excellent absorption properties permanently and quickly bind discolourations, odours and toxic substances and ensure crystal-clear water. We recommend replacing JUWEL Carbax every 2 months.

### Cirax

Cirax is a biological filter medium which creates the perfect colonisation conditions for useful bacteria, due to its large, highly porous surface. We recommend changing JUWEL Cirax every 12 months.

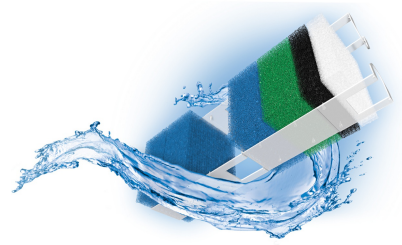
### Phorax

JUWEL Phorax is a highly effective filter medium used to break down phosphates in your aquarium. This effectively reduces the growth of algae and can contribute to improved plant growth. Change JUWEL Phorax every 2 weeks.



**i Important:**

Always use original JUWEL Aquarium filter media to ensure the optimum performance of your system.



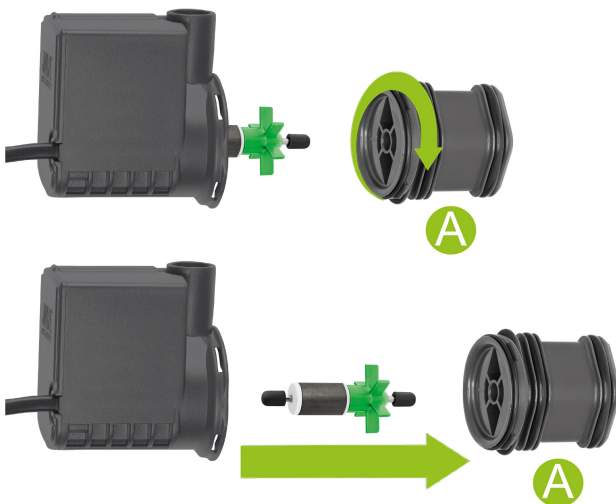
## Maintenance of the pump JUWEL Eccoflow in the filter system Bioflow Super M, L, XL

The JUWEL Eccoflow pump should be checked with regard to functionality and cleaned at regular intervals (at least once a month).

Please proceed as follows to this end:

1. Disconnect all electrical devices that are operated in the water from the power grid.
2. Remove the outlets.
3. Remove the pump from the pump retainer of the filter.
4. Disconnect the adapter (A) from the motor by turning it counter-clockwise and remove the impeller from the chamber.
5. Now clean all components thoroughly. Deposits and dirt should in particular be removed from the pump chamber, the impeller and pump shaft. Otherwise the functionality of the pump will be impaired.
6. Check the impeller for damage and possible signs of wear of the magnet. You should also ensure that the two rubber bearings are located on the ends of the pump shaft.

After that, please reinstall the pump in reverse order in the filter.



### SAFETY INSTRUCTIONS:

- Never operate the power head out of water.
- Always unplug the power head from the power supply before removing it from the filter.
- The power head is intended for indoor use and for use in fluids up to 35°C.
- Never repair the electrical cord or plug. In case of damage replace the complete power head.



### Recommendation:

We recommend that you replace the parts subjected to wear and tear, e.g. the impeller, axle and the rubber axle holders, at intervals of approx. 12 months in order to ensure the optimum function and operating quietness of the pump. Inquire at your specialist retailer for assistance.

## JUWEL AquaHeat - Operation and maintenance of the heater

The JUWEL Aquarium adjustable heater is an essential component of the JUWEL filter

system. It's positioning within the filter housing and consequently in the water stream facilitates even warming of the water in the aquarium, the Juwel AquaHeat is also particularly energy-saving.

You control the temperature of the water via the adjusting knob in the heater head. You may specify the temperature the heater is supposed to heat the water to in accordance with your individual requirements. The centre position between "+" and "-" corresponds to a water temperature of approximately 23 – 26°C or 74 – 78°F depending on the ambient temperature.

Please note that the JUWEL AquaHeat adjustable heater is designed to heat up to 8°C above room temperature. Please also note that depending on the starting temperature of the water in the aquarium, it may take approx. 12 hours and longer until the heater has heated the water to the desired temperature. After that, the heater will automatically keep the water at the desired temperature and switch on or off, accordingly. The red glowing lamp indicates that the heater is working.

We also recommend that you to check the temperature of the water by means of a thermometer at regular intervals. The heater does not require further care or maintenance.



## JUWEL AquaHeat - Installing the heater in the JUWEL filter system

The JUWEL aquarium heater is supplied with the heater holder (fig. 1) which you will need for the installation.

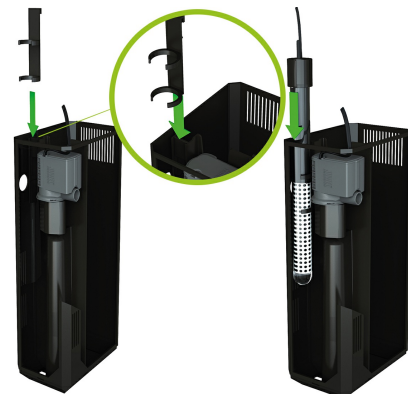
Please perform the following steps for all JUWEL Aquarium filter systems:

(You may need to start by removing an installed separation wall holder.)

1. Install the heater holder.
2. Attach the heater to the filter housing on the inside of the filter and/or initially insert the heater holder into the guide rail of the separation wall.

The heater is properly positioned if the heater holder rests on the upper edge of the housing and/or the separation wall.

The heater is now operational.



### Recommendation:

The JUWEL automatic heater warms the water of your aquarium up to 28°C depending on a normal room temperature of 21°C. If you keep your aquarium in rooms below this or your fish need a higher temperature, we recommend to purchase a second heater.

### Safety instructions:

- Only connect the heater once the aquarium is filled with water at least to the minimum water level of the heater.
- Maximum operating depth 80 cm.
- Never use the heater outside the aquarium.
- Operate the heater indoors only.

### SAFETY INSTRUCTIONS:

- Always unplug the heater and allow it to cool before removing it from the filter.
- Never attempt to open or repair the heater. Any signs of damage or malfunction and the heater should be replaced with an original JUWEL Aquarium heater.
- Never repair the electrical cord or plug. In case of damage replace the complete heater.
- Once removed never place on a flammable surface.

## JUWEL DigitalThermometer 3.0

With the digital thermometer 3.0, you can check the water temperature in your aquarium conveniently and precisely. The thermometer is integrated perfectly into the JUWEL design and the large display allows for comfortable temperature readings.

The **JUWEL DigitalThermometer 3.0** is available as an original accessory (Article Number 85703) for JUWEL aquariums.



## MultiLux LED light unit

The MultiLux LED is a high-performance LED light unit for your aquarium. The replaceable LED tubes enable maximum lighting of your aquarium and ensure an energy saving of up to 50% compared to T5 fluorescent lamps.

The light unit itself is waterproof and therefore allows you to maintain your aquarium with full lighting.

## Installation of the MultiLux LED light unit

The water tightness can only be guaranteed if the tube holders have been firmly connected to their sockets and we recommend that you check this prior.

The MultiLux LED light unit may now be placed on the top frame of the aquarium and connected to the power supply. Then, attach the flaps and close the aquarium.

In that context, ensure that the top frame of the aquarium and the guide rails of the cover hatches are free of foreign objects, e.g. sand or gravel.



## Maintenance and Care of the MultiLux LED light unit

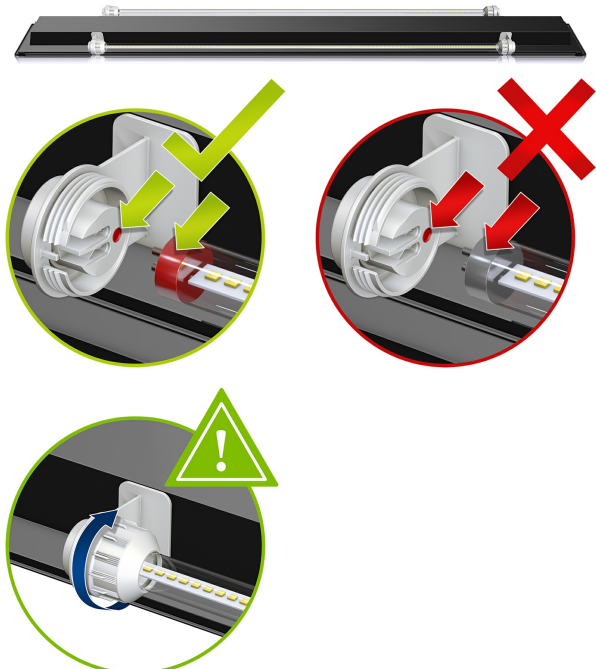
The JUWEL Aquarium MultiLux LED light unit requires little care and maintenance. Only clean the frame with a soft cloth and warm water.

Changing the LED tubes:

In order to fault-free functionality of the light unit, it is absolutely necessary to disconnect the power plug prior to replacing the LED tubes!

Only reconnect the MultiLux LED to the power supply after this!

1. Unscrew the tube holders and slide them over the LED tube.
2. Remove the LED tubes from the fittings.
3. Prepare the new LED tube for use by sliding the tube holders over the tube.
4. Insert the new LED tube into the fitting as shown in the illustration. Check the correct position.
5. Screw the tube holders on tightly.
6. Switch the light unit back on.





#### SAFETY NOTICES:

- LED module – do not look into the light source! Risk Class 2
- Never stare directly into the source of light for any period of time as you will otherwise risk damaging your eyes.
- Pull the power plug for each LED tubes replacement.
- The connection line may not be repaired. Always replace the entire light unit in case of damage.
- Do not operate the light unit under water.
- Do not attempt to open the light unit or repair it in case of a malfunction! This would endanger the water-tightness.
- The JUWEL LED tubes are coordinated with the electronic components of the MultiLux LED light unit. Therefore, only use these LED tubes as original JUWEL Aquarium spare parts.



#### Notice:

If a defect occurs on the MultiLux LED light unit, it switches itself off automatically.

If a replacement of both LED tubes does not make the light function again, we recommend that you purchase a new light unit, which is available as a spare part.



#### JUWEL SmartFeed 2.0 Futterautomat

The JUWEL SmartFeed 2.0 is a convenient automatic feeder for granulate and flake feed with an extended range of functions.

Three different feeding intervals (24/48/72 hours), as well as the desired feeding time and quantity can be programmed individually (up to 8 levels). The device allows for up to 3 feedings per day. The feeder is equipped with a micro USB interface for external power supply.

**The JUWEL SmartFeed 2.0 is available as an original accessory (Article Number 89020) for JUWEL aquariums.**



#### Notice: LED tubes

- The energy-saving **LED DAY** light medium with bright, invigorating light, ensures brilliant illumination of the aquarium and promotes plant growth at the same time.
- The energy-saving **LED NATURE** light medium produces a warm and natural light. The special light spectrum of the lighting medium promotes plant photosynthesis whilst highlighting the green colours in your aquarium.
- The energy-saving **LED COLOUR** light medium creates a stimulating red light in your aquarium. The special spectrum particularly emphasizes the many red and blue tones of your fish and plants.
- The energy-saving **LED BLUE** light medium was specially developed to simulate the lighting conditions on coral reefs at depths of around six metres. Corals are specifically encouraged to grow thanks to the special spectrum of light that LED BLUE produces.
- The energy-saving **LED MARINE** light medium impresses by being particularly bright. The special spectrum from the LED MARINE produces a bright white light that simulates the lighting conditions found in coral reefs.



The energy-saving LED light media in your MultiLux LED light unit helps you to achieve up to 50% energy saving compared with T5 tubes. The LED lighting media are available as an original JUWEL spare part.



## Ecoflow Pump symbols



### **PLEASE RECYCLE AS REQUIRED!**

Please do not hesitate to contact our competent administration if you have any questions.



### **Proper disposal (electrical waste)**

The labelling on the product or on the accompanying literature declares that it must not be disposed of, at the end of its service life, together with household rubbish. Please dispose of this equipment separately from other waste, to protect the environment or public health from damage by unregulated waste disposal.

Recycle the equipment and support the sustained recycling of material resources.

Private users should contact the dealer who sold them the product or the responsible authorities, for a demonstration on how to recycle the equipment in an environmentally friendly way.

# Guarantee

We guarantee the performance of the JUWEL-Aquarium product or its accessories to the purchaser for a period of 24 months from the date of purchase according to the following conditions:

## § 1 Extent of the guarantee

(1) This guarantee extends to the JUWEL-Aquarium product and its components excluding items subject to wear and tear such as T5 and T8 light tubes and filter media. It is limited to the product as such and does not cover damage to other property and/or individuals. In addition, the provisions of the product liability law apply. These provisions are not limited by the aforementioned arrangement.

(2) It is the prerogative of JUWEL-Aquarium to decide whether the guarantee is performed by means of repair or replacement. If neither repair nor replacement can ensure the performance of the JUWEL-Aquarium product the purchaser is entitled to demand a reduction in price or to return the product against repayment of the purchase price.

## § 2 Guarantee period and settlement procedure

(1) The guarantee period begins on the day of the purchase of the JUWEL Aquarium product from the retailer. Claims under this guarantee will not be honoured, if

- (a) the damage is caused as a result of improper use or maintenance or nonobservance of the instructions given in this manual
- (b) the product or its components have been maintained by persons or companies not authorised by the manufacturer to do so
- (c) the product or its components have been damaged by mechanical means of whatsoever kind, in particular broken glass

(2) All claims under this guarantee have to be notified to the retailer, from whom the aquarium has been purchased without delay, however, not longer than 2 weeks from the day of first occurrence of defects. Rights under the consumer protection laws will remain unaffected.

(3) Guarantee claims will only be accepted if the validity of the claim is supported by evidence of purchase of the JUWEL-Aquarium product. This declaration of guarantee is a translation only. In case of doubts the original German language version prevails.

We reserve the right to make technical alterations.

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® JUWEL, Trigon, Vision, Rekord, Rio, Lido, Vio, Primo, Korall, MonoLux, DuoLux, MultiLux, KorallLux, Violux, NovoLux, PrimoLux, SeaSkim, EccoSkim AquaHeat, EasyFeed, SmartFeed, High-Lite, Warm-Lite, Colour-Lite, Day-Lite, Juwel Twin-Lite, HiFlex, SmartControl, Juwel Eccoflow, Bioflow, Cirax, Nitrox, Phorax, Carbox, BioPad, BioCarb, BioPlus, bioBoost, OxyPlus, Silexo, Conexo.

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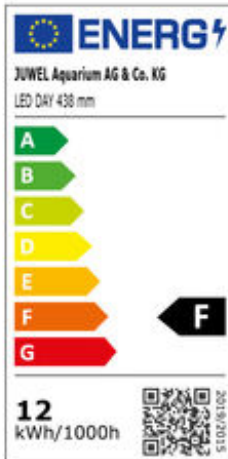
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Tel.: 01953 606 363 Fax: 01953 603 839  
E-Mail: [info@juwel-aquarium.co.uk](mailto:info@juwel-aquarium.co.uk)  
Service-Mail: [info@juwel-aquarium.co.uk](mailto:info@juwel-aquarium.co.uk)



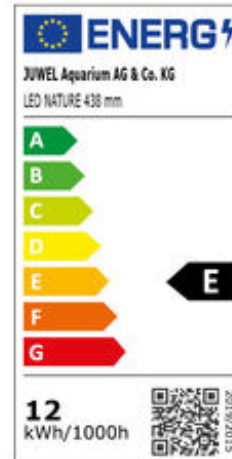
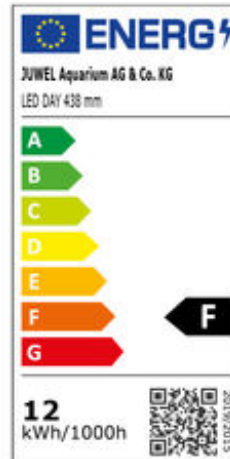
This product contains light sources of the energy efficiency classes:

## MultiLux LED

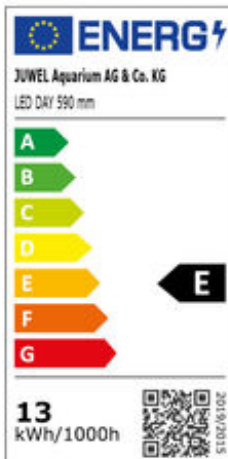
MultiLux LED 55 cm  
Trigon 350



MultiLux LED 60 cm  
Lido 120



MultiLux LED 70 cm  
Trigon 190, Lido 200



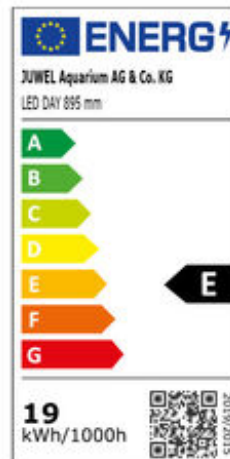
MultiLux LED 80 cm  
Rio 128



MultiLux LED 92 cm  
Vision 180

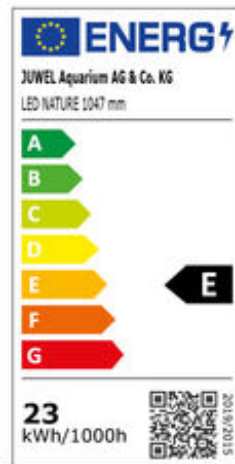


MultiLux LED 100 cm  
Rio 180, Trigon 190

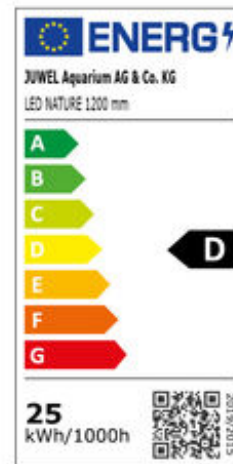
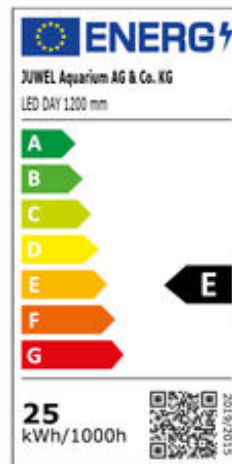


# MultiLux LED

MultiLux LED 120 cm  
Rio 240, Rio 350, Vision 260



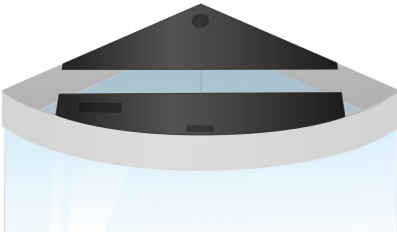
MultiLux LED 150 cm  
Rio 450, Vision 450



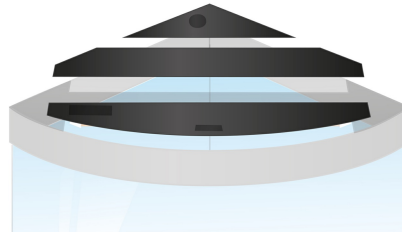
## AQUARIUM PASS TRIGON 190 / TRIGON 350



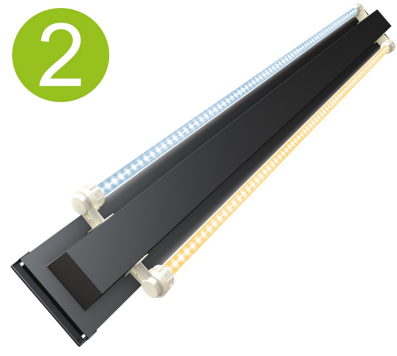
1 Trigon 190



1 Trigon 350



2



3



4



5



Aquarium		1	2		3			4			5
		Product Code	Product Code	Technical Details	Product Code	Technical Details	Technical Details before 2020	Product Code	Technical Details	Technical Details before 2020	Product Code
TRIGON LINE	Trigon 190	93935	INT: 46507 UK: 46527 AU: 46547	70 cm	86805	11 W, 590 mm	14 W, 590 mm	86825	11 W, 590 mm	14 W, 590 mm	92003
	Trigon 350	93938	INT: 46505 UK: 46525 AU: 46545	55 cm	86804	10 W, 438 mm	12 W, 438 mm	86824	10 W, 438 mm	12 W, 438 mm	92003
			INT: 46510 UK: 46530 AU: 46550	100 cm	86808	17 W, 895 mm	23 W, 895 mm	86828	17 W, 895 mm	23 W, 895 mm	



## **FILTERPASS TRIGON 190 / TRIGON 350**



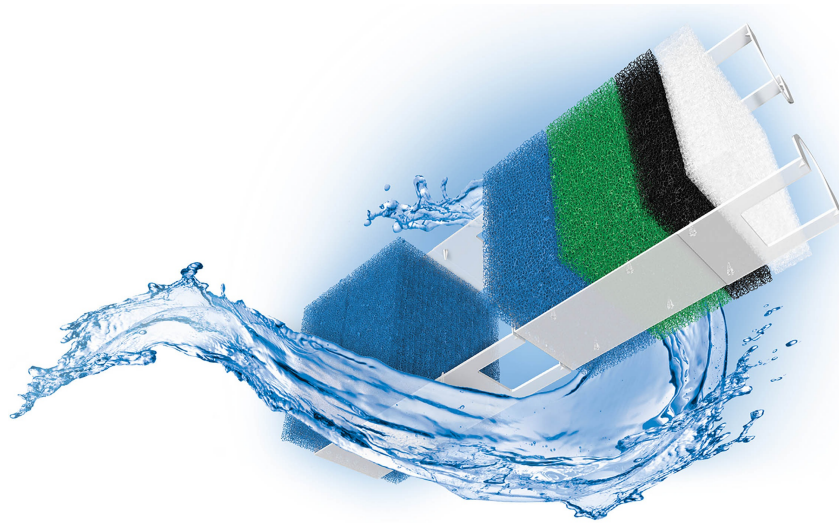
[www.juwel-aquarium.com](http://www.juwel-aquarium.com)



Aquarium:	Rio 125, Lido 120	Rio 180, 240, Lido 200, Vision 180, Trigon 190	Rio 300/350, Vision 260	Rio 400/450, Vision 450, Trigon 350
Filter:	<b>Bioflow M</b>	<b>Bioflow M</b>	<b>Bioflow L</b>	<b>Bioflow XL</b>
1.	<u>Eccoflow 500</u> INT: 85752 UK: 85762 AU: 85772	<u>Eccoflow 600</u> INT: 85754 UK: 85764 AU: 85774	<u>Eccoflow 1000</u> INT: 85756 UK: 85766 AU: 85776	<u>Eccoflow 1000</u> INT: 85756 UK: 85766 AU: 85776
2.	85091	85093	85095	85095
3.	<u>AquaHeat 100 W</u> INT: 85605 UK: 85805 AU: 85855	<u>AquaHeat 200 W</u> INT: 85610 UK: 85810 AU: 85860	<u>AquaHeat 300 W</u> INT: 85615 UK: 85815 AU: 85865	<u>AquaHeat 300 W</u> INT: 85615 UK: 85815 AU: 85865
4.	85990	85990	85990	85990
5.	90046	90046	90046	90046
6.	90017	90017	90018	90019



## **FILTERMEDIA** **TRIGON 190 / TRIGON 350**

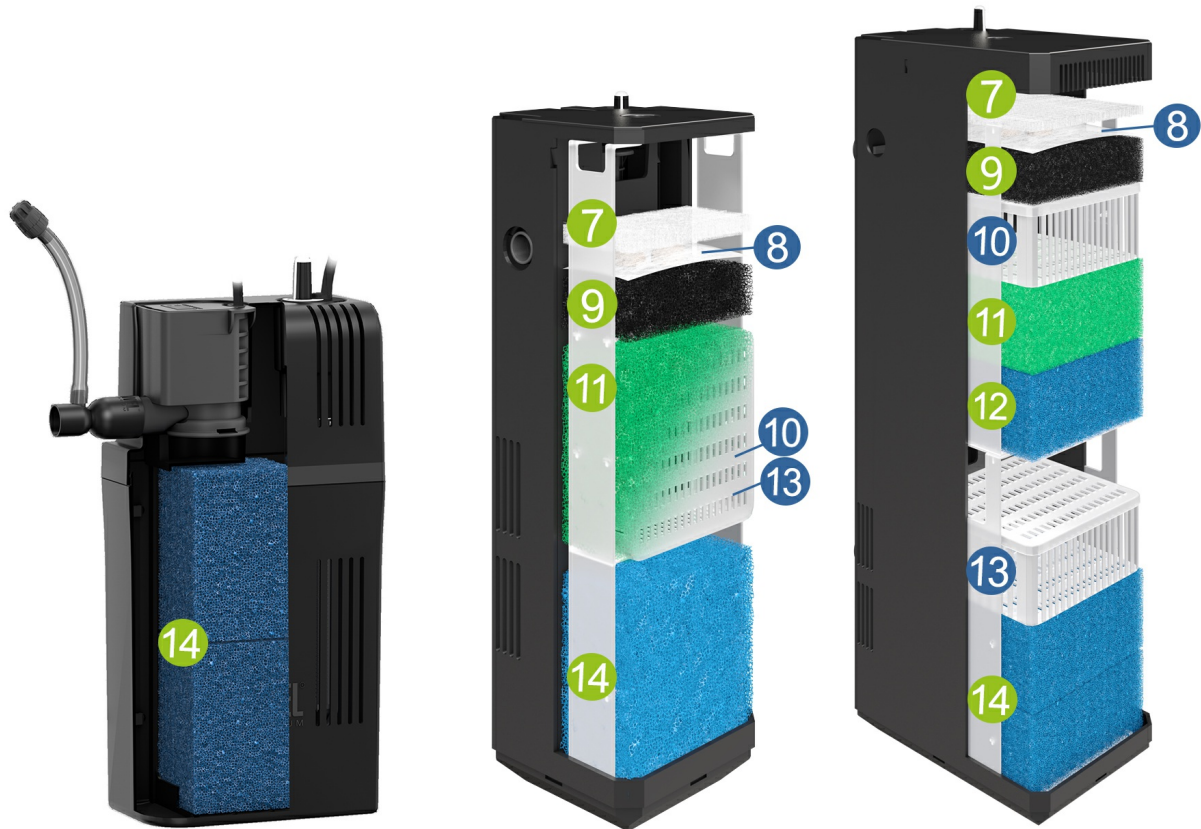


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## Bioflow ONE

## Bioflow Super

## Bioflow M, L, XL



Aquarium:		Primo 60 & 70	Primo 110	Rio 125, 180, 240 / Lido 120, 200/ Vision 180/ Trigon 190	Rio 350/ Vision 260	Rio 450/ Vision 450/ Trigon 350
Filter Type:		Bioflow ONE	Bioflow Super	Bioflow M	Bioflow L	Bioflow XL
		Product Code	Product Code	Product Code	Product Code	Product Code
7.	bioPad	-	88038	88049	88099	88149
8. OPTIONAL	bioBoost	-	88000	88000	88000	88000
9.	bioCarb	-	88037	88059	88109	88159
10. OPTIONAL	Carbox	-	88058	88058	88108	88158
11.	Nitrax	-	88055	88055	88105	88155
12.	bioPlus coarse	-	-	88050	88100	88150
13. OPTIONAL	Amorax	-	88054	88054	88104	88154
	Cirax	-	88056	88056	88106	88156
	Phorax	-	88057	88057	88107	88157
14.	bioPlus fine	88021	88051	88051	88101	88151