

HOW TO USE

FAUNA MARIN ZEO LIGHT-SYSTEM

Your path to an exceptional aquarium **with lots of color and growth.**

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Instructions for a **simple** and **effective** way to use the Fauna Marin **Zeo-Light System**

In a few steps you can work your way to having a fantastic aquarium with healthy corals and vibrant colors.

Our **Zeo-Light System** is one of the most widely used systems for high-end SPS aquariums. The exceptional results provided by our system make it the preferred choice of many of the best aquarists from around the world.

The Zeo-Light System makes it possible to achieve outstanding coral **color, health, and growth** without the need to dose countless products on a daily basis.

The products that make up this system only need to be dosed twice per week!
With a few, but very effective products you can achieve incredible results.

In combination with our **Balling-Light System** and our other products, the Zeo-Light System guarantees a stable saltwater aquarium for years to come. The stability provided by this system also helps avoid the dreaded **"Old Tank Syndrome"**.



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With the launch of our **Seawater Research Laboratory** we are now able to **fine-tune our products** even further. In combination with our lab, experience and recent findings, we are able to provide you with products that are **more effective than ever**. In this new "How to Use" guide, new products and dosages have been adapted to accommodate the aforementioned changes.

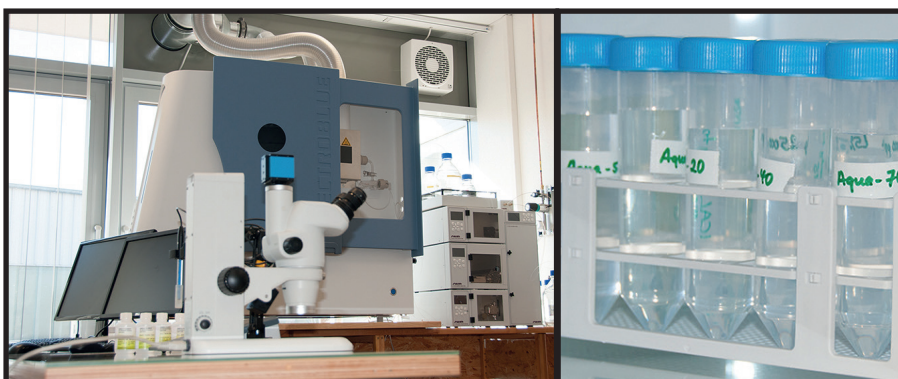
The result is:

- Significantly **more effective products**
- Up to **20% lower dosages**
- Up to **20% more growth and significantly improved color even under modern LED systems**.
- A more effective **Zeo-Light System** that is **now adapted to today's modern reef keeping methods and equipment choices**.

For many years now we have used the Zeo-Light System on our own sales and display aquariums. Our products are developed by us and are **unique** in composition. We only use tried and tested elements which have shown positive results throughout the years. Within these elements are also new trace elements and micronutrients which have not yet been recognized by hobbyists. These elements also include marine biopolymers and enzymes which provide an important basis for the effectiveness of the Zeo-Light System.

Fauna Marin is pioneering the use of these new micronutrients, all of which are already being used in successful products such as **Bacto Reef Balls** and **LPS Grow and Color**.

All of our products undergo rigorous quality checks and are **controlled by our in-house marine laboratory, Fauna Marin Seawater Research Lab**. We are constantly developing and improving our products to ensure the outstanding quality you and your reef deserve.



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This guide is intentionally made to be as simple as possible. It therefore only covers the products that are absolutely necessary. This guide will not go into detail with the basic principles of maintaining a saltwater aquarium. The instructions that follow are based on the **Berlin system, adequate skimming, good water parameters, and adequate lighting**.

You can find detailed recommendations on water parameters and filter systems in our **website's download area** and at **the end of this manual**.

In order to ensure a perfect start without the addition of unwanted elements and compounds from poor quality salts, we recommend using our **Professional Sea Salt** and **the original Fauna Marin Balling-Light salts and trace elements**.

The "Balling" products that have come on the market in recent years **have nothing to do with our Fauna Marin Balling products**. We recommend using our **original FM Balling Light products** because we can then **guarantee the positive effects** without worry of introducing unwanted compounds.

The new Zeo-Light System is based on a few, but particularly effective products which make marine aquarium care as easy as possible.

For the Zeo-Light System, you need:

- **ZEO LIGHT**
Zeolite mixture for nutrient reduction
- **Reef Vitality Marine Organics**
Nutrient control and coral nutrition
- **Carb L**
Activated charcoal during use
- **Color Elements**
Trace Elements for color optimization
- **Min S**
Nutrient supply and stabilization
- **Easy K**
Potassium solution
- **Coral Balance**
Water treatment
- **Coral Sprint -**
SPS und LPS Futter (optional)



*The individual products mentioned above will be explained in the pages that follow.

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Zeo Light Saltwater – Zeolite mixture

To prepare the zeolite media, first **wash it with tap water or RO water** then **soak in tap water for 24 hours**. Once the 24hrs has passed, the media is ready to use.

The basic dosage is **1000 grams of Zeolite per 1000 liters** (264 gal) of net water volume. Make sure to calculate your net water volume as accurately as possible, taking live rock and sand displacement into account.

Put the Zeo Light (formerly: UltraLith) in a **Zeolite filter** or in our automatic Zeolite filter, **“Zeomatic 2”**. The ZM2 filter includes an **automatic cleaning function** that makes the media more effective and easy to maintain.

Replace 75% of the zeolite media every 4 weeks.

Flush/clean the media every 1-2 days.

Change the zeolite media only during the days when it is due to be cleaned.

Activated carbon (Carb L) should be replaced **14 days apart from a zeolite media change out.**

You are free to use other saltwater-compatible zeolite mixtures. We do however strongly recommend you use products from manufacturers that have proven knowledge in the saltwater area. There are some zeolite media products that are sold for freshwater purposes. Please note that if another product is used, changes in the dosage may be needed.



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Reef Vitality Marine Organics

Growth booster & color enhancer. Reef Vitality is a particle-based food for all corals and sponges. It consists of marine organic and inorganic elements which are very similar to natural organic nutrient compounds. This results in the **optimal availability of beneficial substances for your corals.**

With Reef Vitality, you promote the **bacterial breakdown of unwanted nutrients** and **stabilize the nutrient concentrations at a low level.** Reef Vitality binds excess nutrients and Trace elements and results in **more effective skimming.**

As a result of adding RV, **the corals increase their nutrient intake** and **show increased growth rates.** This leads to a **deep coloration of corals** which is the same reaction noticed when in their natural habitat.

Dosage:

1 capsule / 1000 liters (264 gal) every 4 days.

Open the capsule and dissolve the contents in at least **100ml of aquarium water.** **Shake vigorously for 30 seconds.** Pour the solution directly into the aquarium. The solution **can be stored in a refrigerator for up to 7 days** and can also be added daily if you prepare larger batches.

If you have a smaller aquarium, open the capsule, prepare the solution with 100ml of aquarium water and **add only the amount that is needed for your aquarium.**

For example, 10ml of the solution is good for a 100 liter (26 gal) aquarium, 30ml for 300 liters (79 gal).

Shake the solution vigorously before each dose. **Do not dose on same day as Color Elements!**

For each dose, increase the alkalinity value (carbonate hardness) until it is within the acceptable range.



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Carb L – Activated charcoal during use

Continuous filtration via **Carb L (high-purity, activated pellet charcoal)** is a basic pillar of the Zeo-Light System.

Carb L is used as a “Permanent carbon” and is used for the care of sensitive SPS and LPS coral. Carb L helps **maintain crystal clear water** by removing phenols, protein compounds, dyes, and nettle toxins from the water.

Dosage:

250 – 300 grams (approx. 0.5 – 0.6 liters) / 1000 liters (264 gal) of aquarium water

Place media in a media filter such as **Fauna Marin Multi-filter** with **no more than 200 lph (52 gph) of flow through the reactor.**

400 – 500 grams (approx. 0.8 – 1.0 liters) / 1000 liters (264 gal) of aquarium water.
Use with a filter bag or nylon stocking.

Change the media **every 3 – 4 weeks.**

Always **change 14 days apart from a Zeolite media change out.**



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Color Elements trace elements

Color Elements are a novel mixture of **growth and color-activating trace elements**. These mixtures are based on the latest findings and are **adapted to current sea salt mixtures**.

A particular emphasis is placed on the fact that these elements are based **on factors of modern reef aquariums such as those that use LED lighting**.

The innovative elemental mixture of CE activates and stabilizes important micronutrients **which allow for the significant improvement of growth and color development**. The special combination of these elements **prevent undesirable build-up of excess elements which can lead to unsightly algae or bacteria growth**.

Color Elements are suitable for any aquarium system that runs a **Berlin filtration system**. Through the interplay of the elements from all 3 bottles, **almost all colors can be targeted and enhanced**. This set makes it easier to optimally supply corals with missing elements. **Fluorescent colors** for LPS or soft corals are intensified along with improved SPS coloration. Growth-activating substances support the utilization of these elements.



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Starting dosage:

When dosing with Reef Vitality, we recommend starting with a dosage of 0.5ml / 100 liters (26 gal) / week. Dose every 3 – 4 days in 2-day intervals.

Increase the dosage **every month by 0.5ml** until the desired result is reached.
The normal dose is 1 - 2.5ml / 100 liters (26 gal), every 4 days.

The maximum dosage is 3ml / 100 liters (26 gal), every 4 days.

This amount should not be exceeded. Dosages via a dosing pump are also possible.

Please note that we do not have any Zooxanthellenised element mixtures!

The use of these kind of element mixtures can sometimes be permanently toxic to corals. Our mixtures provide a **natural and powerful method for coloring up corals** and is compatible for **mixed reefs with SPS and LPS coral**.

These additives become extremely beneficial and above all, provide improved coral coloration.



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Coral Sprint – SPS and LPS food

Our new **special food for LPS, SPS, and sponges.**

Coral Sprint is a **supplemental food** for aquariums that are **low in nutrients**; low NO_3 , low PO_4 , etc. This product is made from a **special mix of volatile proteins** and **bacterial cells**, all of which are a natural food source found in nature's coral reefs.

Coral Sprint does not increase nutrients. This product helps provide **strong growth** and **deep, strong colors, in ultra-low nutrient aquariums.**

The special thing about Coral Sprint is its unique composition which **stimulates LPS, SPS, and Azoo corals to consume the food from the water column.**

Dosage:

1 measuring spoon / 500 liters (132 gal), every 2 days.

Shake vigorously and pour into a high-flow area of the aquarium.

It does not matter the time of day you dose. With high stocking levels, Coral Sprint can also be fed several times per day in small dosages. Be sure not to overdose Coral Sprint because coral tissue may slightly darken. If this happens, reduce the dosage by 25%.

Coral Sprint becomes even more effective when mixed **with a few drops of Min S per measuring spoon.** For this purpose, **add 3 drops of MIN S onto a measuring spoon with Coral Sprint, wait 2 – 3 minutes, then add the food to the aquarium.**

A dark, aromatic smell may be noticed during mixing and after dosing. This is normal and desired.

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Ultra Min S – Nutrient supply

Ultra Min S is a **nutrient and food concentrate** mainly used for the care of **colored stony corals**.

Thanks to its special composition, **corals immediately react and consume it rapidly**.

Polyps will expand and the **polysaccharide mucus of the corals will be supported**.

Ultra Min S contains **many minerals, amino acids, vitamins** and **trace elements** which **stimulate bacterial fauna** and **activate coral growth**.

Dosage:

1 - 3 ml / 1000 liters (264 gal), every 2 days, dosed directly into the aquarium.

A typical sign of overdosing can be seen when coral tissue becomes darker or when a slightly whitish-green film develops on the walls of the aquarium. **The minimum dosage is 1 - 3 drops.**

If overdosing is noticed, reduce the dosage by 50%.



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Easy K – Potassium solution

In some aquariums with Zeolite filtration, **the demand for Potassium is higher than usual**. This kind of demand is not easily met with regular water changes. We therefore recommend you regularly test your Potassium value with the **Fauna Marin Potassium Test Kit** and dose Potassium as needed.



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Coral Balance – Water conditioner

Coral Balance is a **modern nutrient regulator** and **metabolic accelerator**. This product was specially developed to **reactivate and stabilize the natural nutrient cycle and acid regurgitation of your reef aquarium**. In low nutrient systems, **Coral Balance accelerates phosphate degradation and stabilization**. With the natural effectiveness of **active marine biopolymers**, great results can be achieved with **small dosages**.

Coral Balance is a **coral food, nutrient carrier, and water conditioner in one**.

Due to the unique composition, the product **very quickly and effectively** accelerates the nutrient output through faster coral growth and biological degradation.

After the addition of Coral Balance, the corals form a natural protective film, become **more colorful**, and **gain a natural luster**.

Coral Balance supplies your corals with a combination of **dissolved and particulate food**. As a carrier material, Coral Balance traps and transports nutrients and minerals so that the coral can easily consume it. Through the addition of **natural biopolymers and organic marine raw materials**, the water becomes enriched, acid regulation is improved and more effective.



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Dosage:

1 dosing spoon / 200 liters (52 gal) of aquarium water, every 4 days.

Mix well with a sample cup of aquarium water and pour directly into a high-flow area.

For aquariums **older than 2 years** or with **PO4 values above 0.15 mg/L**, we recommend **dosing 50% of the recommended amount**.

When using Coral Balance for **the first time**, start with **25% of the recommended dose** and **increase by 25% every month** until recommended dose is reached.

1 dosing spoon is equivalent to **½ teaspoon per 100 liters (26 gal)** of aquarium water. Immediately after dosing, the aquarium water will become cloudy. This cloudiness is harmless and will dissipate within 3 – 5 hours.

Important!

For new aquariums, start Coral Balance **ONLY after the aquarium has been running for at least 3 months**.



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Bacteria

When using Live Rock, the system may not always provide a sufficient supply of bacteria for cycling. The addition of bacterial mixtures such as **Bacto Reef Blend** can accelerate the cycling phase, but are by no means necessary for basic reef systems.

If you decide to add a bacterial mixture to your system, you can use a product such as **Bacto Reef Balls**. When using this product, **the dosage should not exceed 50% of the recommended dose**.

Other water values and water tests

We recommend you run **regular water tests via our Seawater Research Laboratory**. These laboratory tests will analyze your water sample and help you fine-tune your maintenance and dosing schedule with all water values taken into account. Take advantage of our **Business Test Service** and benefit from the **one-on-one personalized service provided by our experts**.

Recommended water parameters:

salinity	34 - 35 psu	nitrate	0 - 5 mg/liter	iodine	50 - 70 ug/liter
magnesium	1250 -1450	PO4	0,01 - 0,05 mg/liter	boron	6 mg/liter
calcium	400 - 440	potassium	400 - 420 mg/liter		
alkalinity/dkH	6,5 - 7,5	strontium	7- 9 mg/liter		



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Dosage instructions – Short version

Zeolith:

- 1 liter / 1000 (264 gal), rinse and soak in tap or RO water before use, clean every 2 - 3 days
- Replace 75% of the media every 4 - 6 weeks

Reef Vitality:

- 1 capsule / 1000 liters (264 gal), every 4 days, dosed on a separate day from Color Elements
- Dissolve capsule in at least 100ml of aquarium water before use
- Partial quantities can be stored for up to 7 days refrigerated

Carb L:

- 250 – 300 g / 1000 liters (264 gal), in a fluidized reactor with max flow of 200 lph (52 gph)

Color Elements:

- 2ml / 100 liters (26 gal) / 4 days, start dose at 0.5ml / 100 liters (26 gal)
- Dose every 4 days, 2 days apart from Reef Vitality dosages
- Color Elements can be added at the same time
- Depending on the desired color development, each bottle dosage can be adjusted
- Maximum dosage of 3ml / 100 liters (26 gal) / 4 days

Coral Sprint:

- 1 measuring spoon (6ml) / 500 liters (132 gal), every 2 days
- Pre-dissolve for low nutrient aquariums

Min S:

- Coral nutrition and bacteria food
- Dosage of 1 – 3 drops / 1000 liters (264 gal), every 2 days

Easy K+:

- Dose as needed (determined by Potassium water test result)
- Target Potassium: 440 mg/L

Bacto Reef Blend / Bacto Reef Balls:

- Optional, but especially helpful for aquariums using artificial decoration
Dose 50% of the recommended amount shown on product label

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Other measures leading to success with the Zeo-Light System:

1. **10% weekly water change** with **Professional Sea Salt**
2. Use of the **Balling Light System**
3. **Partial exchange (2 - 5%) of the substrate every 14 days**
4. Use of **small decoration pieces**.
We recommend using only ceramics such as **Reef System Reef Ceramic**.
In this case, **continuous filtering must take place over Phos 0,04**
5. **Mixed lighting from HQI / T5 or LED / T5 or T5 only**
6. If LED will be used, we recommend **LED lamps of the brand Kessil**
7. **Regular replacement** of T5 lamps and HQI lamps **at least every 6 - 8 months**
8. **Observe the dosage quantities and go slow**
9. **Regular** water testing with the **Seawater Research Laboratory** for analyzing the most important values. **Monthly PO₄ depot factor analysis via the Heat Test** according to C. Schuhmacher
10. **Adequate animal husbandry**. Include **reef fish** that naturally help clean the aquarium
11. **Sufficient coral stocking level for effective nutrient export**. A reef aquarium must be filled with coral colonies. Having some **small coral frags are not sufficient for nutrient consumption** and offer very little competition to the algae and bacteria deposits which feed off of the same food source
12. **Sufficient flow**. At least **20 - 30x turnover** in the display tank with **high power flow pumps** such as **Panta Rhei**
13. **Regular** maintenance of equipment; pump cleaning, etc.

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If you want to start a new aquarium with the ZEO LIGHT SYSTEM, simply follow the instructions below:

- 1. Tag**
 - Install the aquarium and equipment
 - Construct your rock structure(s)
 - Add substrate to the aquarium; normal coral sand, grain size 3 mm with 2 - 3cm (0.78" - 1.1") depth
 - Add RO/DI water or tap water to aquarium
 - Turn on recirculation and circulation pumps
 - Check the system for leaks

- 3. Tag**
 - Drain water and refill with RO/DI water
 - Add sea salt to water; use a salt mix like Fauna Marin Professional Sea Salt. Adjust the temperature to 25°C (77°F) and mix to a salinity of 34 - 35
 - Install zeolite filters
 - Turn on other equipment such as skimmers and reactors

- 5. Tag**
 - Continue adding fresh live rock
 - Monitor and maintain salinity, alkalinity, and temperature
 - Start lighting with 10 hours per day
 - Begin adding Bacto Reef Blend or Bacto Reef Balls at 50% dosage
 - Use a PO₄ absorber such as Fauna Marin Ultraphos 0,04 for aquariums using ceramic decoration

- 7. Tag**
 - Test water: Calcium, Magnesium, Nitrite, Nitrate, Phosphate
 - Nitrite will be detectable at this time

- 10. Tag**
 - Test Nitrite value. The value should only be up to 0.1 mg/L
 - Start dosing Balling supplements or install lime reactor and adjust Calcium and Alkalinity value
 - Install carbon filter with Carb L

- 11. Tag**
 - Begin stocking!
 - First add hermit crabs, snails, sea urchins. Algae eaters such as blennies can be added a few days later
 - A few days after adding the algae cleaning crew, you can start adding your first corals
 - Increase the stocking level every 7 - 10 days

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How do I switch to the Zeo-Light System?

Due to the variety of different systems, a diagnosis of your aquarium is necessary before changing over.

Before changing to our system, we recommend you get a **detailed analysis of your aquarium water** by using our **Seawater Research Laboratory**. Water tests performed by other labs which do not follow scientific test protocol cannot be used for proper water test result interpretation.

In **nutrient poor aquariums**, a **qualified analysis** of your aquarium is an important step to ensure a successful changeover. **Order the "Business Test" for a complete analysis from our International online shop or US-shop.** Find our **diagnostic questionnaire** on our website's **download center** at **www.fauamarin.de**

Once the form is complete, **email it to us.** We'd be more than happy to advise you on the steps to take for a successful transition to our Zeo-Light System.

Wishing you the best success!

Fauna Marin GmbH

For more information or individualized advice, please write to us directly on our support forum:

Forum.fauamarin.de

For further instructions, information on animals, and our other products, please visit us at

www.fauamarin.de/download-center/