

A photograph of an outdoor dining area. In the foreground, there is a hot tub with blue water and several jets. In the background, a wooden dining table is surrounded by green mesh chairs. The setting is outdoors, with a stone wall and a glass door visible in the background.

EVA B2 LED underwater lighting

MOUNTING MANUAL

A step-by-step guide to mounting EVA B2 LED underwater lighting

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1. ABOUT THIS MANUAL

1.1 Language

This manual is meant for the qualified installer. Read and understand this manual before mounting and using this product. The manual is originally written in English. All other languages versions are translations of the original manual.

1.2 Used symbols

This manual contains safety instructions. Ignoring these instructions may lead to injury or damage to the appliance. Each safety instruction is indicated with a signal word. The signal word corresponds with the level of risk of the described hazardous situation.

 DANGER	This symbol indicates a hazardous situation which, if not avoided, will result in death or serious injury.
 WARNING	This symbol indicates a hazardous situation which, if not avoided, could result in death or serious injury.
 CAUTION	This symbol indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates a situation that, if not avoided, could result in damage to the product or to the environment.

2. SAFETY

2.1 Safety warnings and regulations

DANGER

Electrical shock hazard. Fatal injury will occur. Switch off all electricity near the pool before performing the electrical installation.

WARNING

Electrical shock hazard. Risk of electric shock and injury. The product must be installed by a certified electrician. Incorrect installation will cause electrical hazards.

WARNING

Electrical shock hazard. Risk of electric shock due to incorrect mounting.

- Make sure you read the enclosed documents carefully.
- Never connect the product to the main power before connecting all loose wires properly.
- Always disconnect the product from the main power before servicing.

WARNING

Electrical shock hazard. Risk of electric shock due to leakage of current.

- Make sure to install the turbine with a PE-grounding.
- It's important to connect the installation niche to the pool grounding, never to the house grounding.

NOTICE

Risk of product damage. Prolonged disturbance of frequency may permanently damage the equipment.

- Never place control and power cables together in one conduit, according the Electrical Standards.

2.2 General safety instructions

1. Follow the instructions in this guide carefully. For questions or enquiries, please contact your distributor/reseller or visit www.evaoptic.com
2. This lighting system must be installed by a qualified installer in accordance with applicable local rules and regulations. Improper installation can cause electrical hazards.
3. Switch off all relevant live electrical wiring before starting the installation.
4. Please retain these instructions for the user.
5. EVA Optic BV guarantees that its products will be free from defects in materials and/or workmanship, under normal conditions, operation and maintenance for a period of four (4) years from the original invoice date for LED lights and four (4) years for drivers/ power supplies. Visit www.evaoptic.com for datasheets and our full warranty.

2.3 Materials used

1. Ensure that any materials you use meet the requirements and guidelines that apply to your specific application.
2. Use only EVA Optic gaskets/bolts/screws/nuts.
3. Use only original EVA Optic mounting accessories. Warranty will be irrevocably voided if other materials are used.

2.4 Electrical safety installation instructions

IMPORTANT! Switch off all relevant live wiring before starting the installation!

1. Always use one power supply per light.
2. Mount the power supply box in a cool, dry area.
3. Allow at least 5 cm of space around the power supply box for efficient thermal management.
4. Always mount the power supply box with cable glands downwards.
5. Electrical connections must be executed according to the supplied wiring diagram.
6. It is important that the NTC is connected. This protects the lamp if the cooling is not sufficient.
7. Always take care to lay the cable from the technical room to the lamp in a conduit/ tube so that it can be easily replaced.

3. PRODUCT

The EVA B2 LED pool light is suitable for use in prefabricated pools, whirlpools and can also be used outside of the water in various areas such as playgrounds and slides.

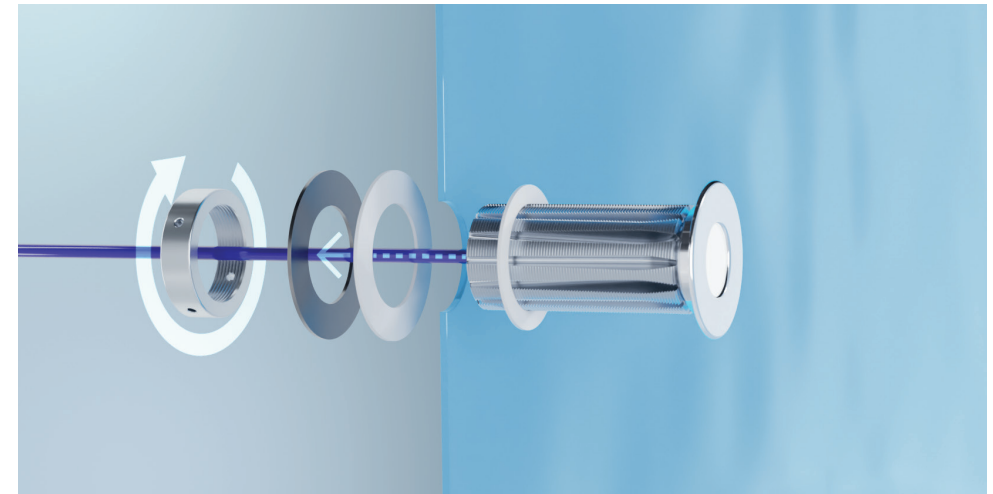
The installation of the B2 lamp does not require any installation niche, because the backside of the lamp needs free space since this lamp is air-cooled.



B2 10W MONO / RGBW

Type of light	B2 10W MONO / RGBW
Applications	Whirlpools, Playgrounds, prefabricated slides
Type luminaire	Frontside IP68 / Backside NOT IP68
Type of water	Fresh water, chlorinated water
Cooling	Backside (heatsink) air-cooled
Max. water temperature	40 °C
Max. installation depth	25 meters
Cable length luminaire (ex-works)	10/20/30 meters (7 wires: 5x0,5mm ² , 2x0,25mm ²). Cable is fixed to the luminaire to ensure watertightness. Min. cable length 3 meters.
Max. cable length	The 10m cable can be extended to a total length of 50 meters maximum (7x 1.5mm ³) or a maximum of 100 meters (7x 2.5mm ²).

4. MOUNTING THE EVA B2 LED UNDERWATER LIGHTING



1. Mount the lamp in the pool edge

Important to use the gaskets for water tightness.



2. Tighten the screw at the backside

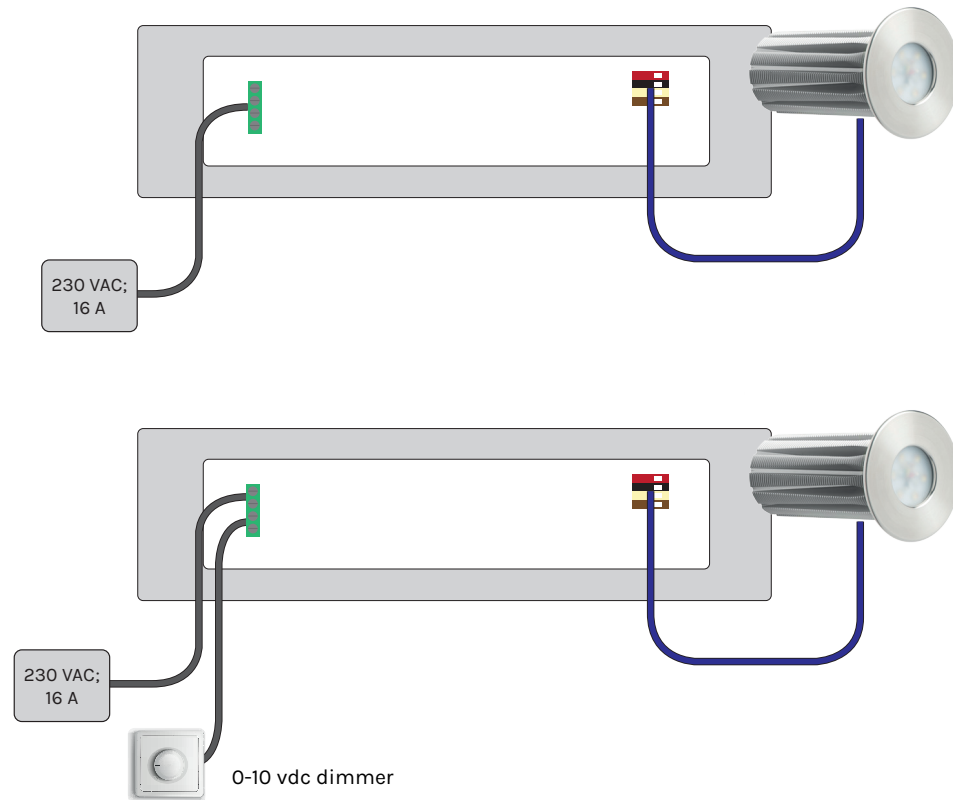
The installation of the B2 lamp does not require any installation niche, because the backside of the lamp needs free space since this lamp is air-cooled.

5. ELECTRICAL INSTALLATION

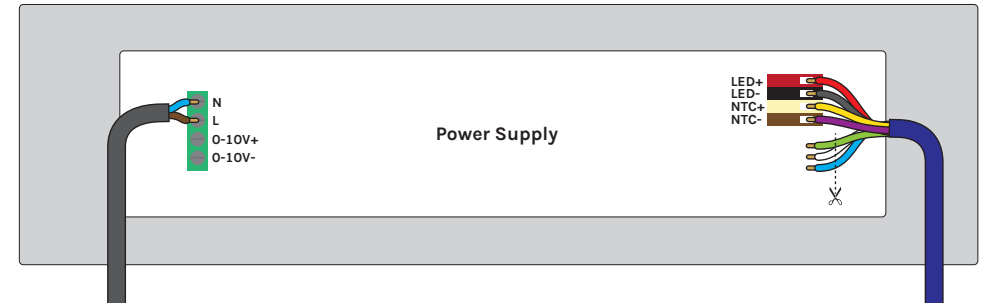
⚠ DANGER

Electrical shock hazard. Fatal injury will occur. Switch off all electricity near the pool before performing the electrical installation.

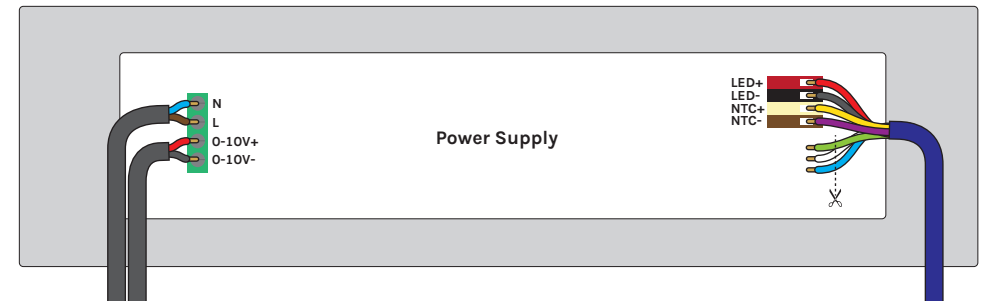
5.1 EVA B2 LED underwater lighting



Overview - Combination of B2 underwater lights and Power Supply Units



Connections to the Power Supply Unit of the EVA B2 LED underwater light (excl. dimmer)



Connections to the Power Supply Unit of the EVA B2 LED underwater light (incl. dimmer)

⚠ CAUTION

Electrical shock hazard. Risk of electric shock due to leakage of current:
Never connect the product to the main power before the installation is finished.

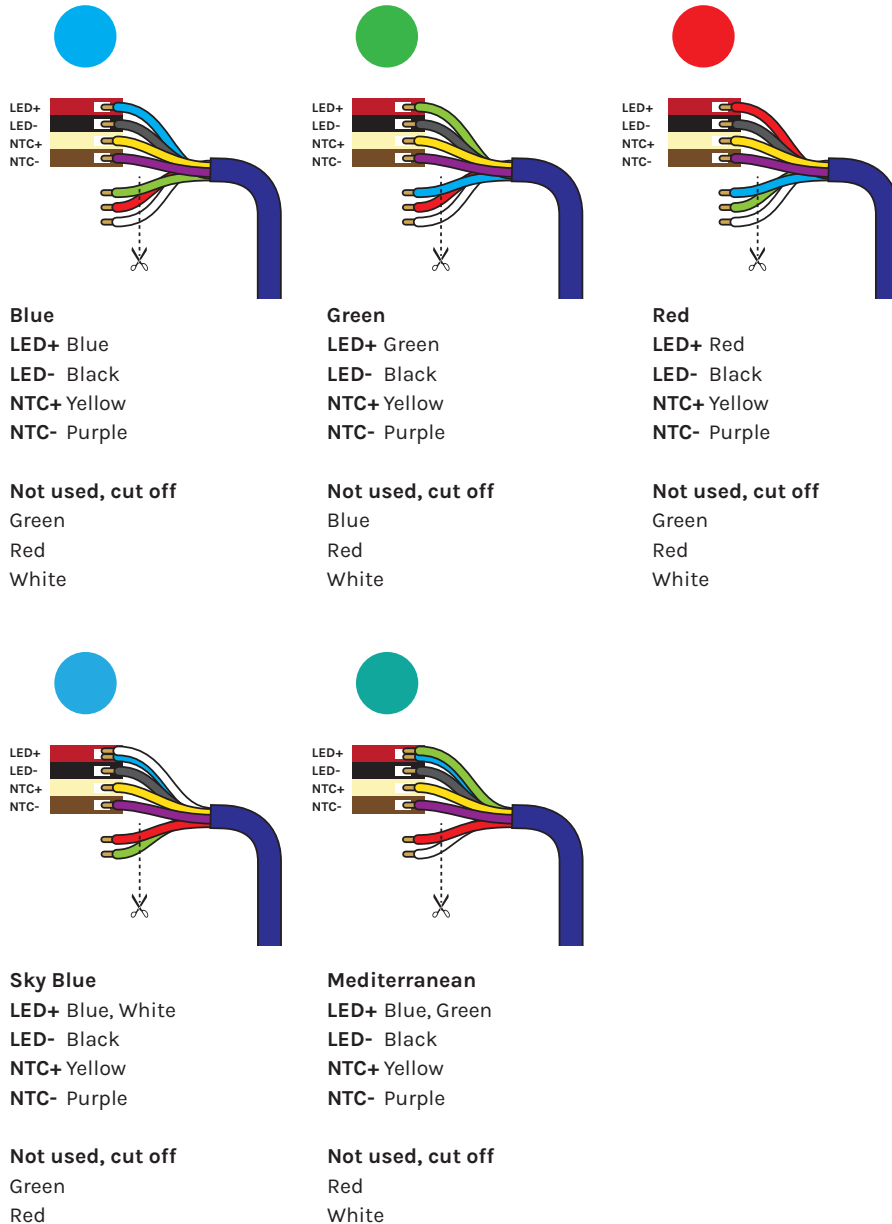
Connect the EVA B2 LED light to the Power Supply Unit:

- Connect the red, black, yellow and purple wires of the 7-wired cable from the EVA B2 LED underwater light to the colours indicated on the PSU.
- The blue, white and green wires are not needed, they can be cut off.

Connect the Power Supply Unit to the mains (230 VAC; 16 A)

- Without dimmer: Connect the 2-wired cable to the colours indicated on the PSU. Connect the cable from the PSU to the mains (230 VAC; 16A).
- With dimmer: Connect the 2x 2-wired cables to the colours indicated on the PSU. Connect a 0-10V dimmer to the black/red cable and connect the blue/brown cable to the mains (230 VAC; 16A).

The EVA B2 LED light can also be set as a fixed colour.
There are 5 possible configurations for the light:



6. CONTROL OPTIONS

The EVA LED underwater lighting can be controlled with various control options:

Remote control and EVA Experience web app (recommended):

The EVA LED underwater lighting can be controlled with the remote control and the EVA Experience web app. To connect the app and the remote control, an ECA PRO must be connected to the EVA LED underwater lights.



Remote Control

The EVA LED underwater lighting can be controlled with only the remote control. To connect the remote control, an EVA-AA-74-RC must be connected to the EVA LED underwater lights.



EVA-AA-75 or EVA-AA-77

The EVA LED underwater lighting can be controlled with an external DMX advanced controller (EVA-AA-75 or EVA-AA-77).



7. DISPOSAL

7.1 Decommissioning

 **WARNING**

Electrical shock hazard. Risk of electric shock and injury. Make sure to disconnect the product from the mains cable before decommissioning.

1. Switch off the power.
2. Switch off the power around the swimming pool.
3. Disconnect the mains cable.
4. Disconnect all other cables.

7.2 Disposal

Before disposing of the different materials, separate them into recyclables, normal waste and special waste. Comply with local legal regulations and provisions when disposing of the product and the individual components. A product marked with the WEEE symbol must be sent for separate collection of electrical and electronic devices. Contact your supplier for more information.



EVA Tech B.V.

De Velde 1

8064 PH Zwartsluis

The Netherlands

+31 (0)38 - 33 75 067

info@evaoptic.com

evaoptic.com