



# LED Lighting for Pools

## Features & Benefits

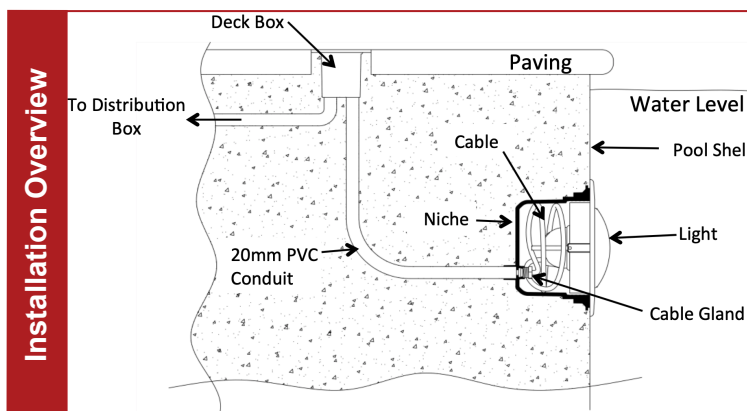
Plus Series	Bao Series
Low Energy – Eco Friendly	Low Energy – Eco Friendly
Long Life	Long life with thermal & surge protection
High Light Output	Ultra high light output
Easy Retro Fit (Fits most niche sizes)	Easy Retro Fit (Fits most niche sizes)
Swivel & Tilt for optimum lighting effect	Extra wide viewing angle for jelly pool effect
Includes 2m marine-grade cable for easy installation	Includes 2m marine-grade cable for easy installation

## Product Range & Specs

Product	Electrical Specs	Light Output	Pool Size	Waterproof Rating	Colour Options
<b>Plus Series</b>					
160Plus	4W @ 12V A.C.	1200 E-Lumens	< 7meters	IP68	Available in Blue or White LED and Black or White Faceplate
500Plus	9W @ 12V A.C.	2600 E-Lumens	< 12meters		Available in Blue or White LED and Black or White Faceplate
1500Plus Colour	9W @ 12V A.C.	4000 E-Lumens Max	< 7meters		Available in RGB LED (Colour) Black or White Faceplate
<b>Bao Series</b>					
Bao200	6W @ 12V A.C.	1400 E-Lumens	< 8meters	IP68	Available in Blue or White LED and White Faceplate
Bao600	12W @ 12V A.C.	4100 E-Lumens	< 15meters		Available in Blue or White LED and White Faceplate
<b>Mini Series</b>					
Spa Light (Aimflow)	4W @ 12V A.C.	1200 E-Lumens	< 4meters	IP68	Available in Blue or White LED and Black or White Housing
Spa Light (Aimflow) Colour	9W @ 12V A.C.	4000 E-Lumens Max	< 4meters		Available in RGB LED (Colour) and Black or White Housing

## Installation

All Eartheco LED lights are designed to be fully submersed in water at all times. Any underwater electrical connections must be completely waterproof. We recommend the use of a fully resin encapsulated joining system, such as the Eartheco Plus Connection Kit.





1. Remove the old light from the niche by carefully prying the outer face plate of the light from side to side until it's free. Take care to protect the pool shell while doing this.
2. Most wet niche pool lights have a coil of cable behind the light to allow for the light to reach out of the pool water to make any electrical connections. Ensure there is enough cable above the water line and cut it to join to the new light cable. Strip back a piece of the supply cable to inspect the copper strands. It is recommended to test for 12Volts AC on the supply cable before proceeding.
3. If the copper strands on the supply cable look corroded, It is possible that water has entered into the cable. This can cause the cable to have high resistance resulting in a voltage drop which will affect the performance of the new light. If necessary replace the cable from light niche to the deck box. Connect the new light's cable to the old cable draw the new light's cable through the gland at the light niche in the pool and up into the deck box. Make sure that the gland in the light niche is sealed to the new cable. Remove old cable and make the electrical connections of the new light in the deck box.
4. If the copper strands on the supply cable are in good order: Join the new light cable to the supply cable with a water proof connection system. We recommend the Eartheco Plus Connection Kit for this. Remember to test the light before sealing or adding resin to the connections.
5. Coil the extra cable and press the light into the niche.

**PLEASE TAKE NOTE FOR PLUS SERIES COLOUR LIGHTS**

- **Important!!** When ready to fit the light back into the niche take note of the rear portion of the light. You will notice the markings "M" and "S" (Memory & Synchronise). When installing a single light orientate the M symbol to point up. This activates the lights memory function and the light will always stay in the last mode used when switched back on.
- When multiple lights are installed and synchronisation is required, orientate the S symbol to point up. This activates the synchronise function to ensure all the lights in the system stay in the same mode. When the lights are switched off for more than 3 Seconds and turned back on the lights will always start in mode 1 by default. After synchronisation please orientate lights with M symbol to the top to activate memory function.

**Mode Changing For Colour Lights**

The Eartheco Plus Series colour lights have 9 modes of operation.

To promote a mode change, a short interruption in the power is required. Simply blip the power switch to the light off and on within 2 seconds to change between modes. Notice: There is a small label supplied with the light to help with mode selection.

Modes	
Mode	Description
1	Smooth Colour- Slowly transitions between all colours
2	Colour Lock- Locks on the currently displayed colour in mode1
3	Prompt colour- Snap changes between 7 colours
4	Breath Mode- Light "breathes" while changing between 7 colours
5	Smooth Blue Green- Slowly transitions between blue and green only
6	Enhanced Blue- Powerful single colour
7	White- Powerful single colour
8	Strobe Smooth colour- Transitions between all colours while strobing
9	Demo- Smooth colour, Prompt colour and breath mode - at 4X speed



## Power Supply Requirements

Eartheco recommends a 12 Volt AC isolated transformer that meets relevant local authority standards. Select a suitably sized transformer based on the following power requirements:

Product	Wattage
160Plus	4W @ 12V A.C.
500Plus	9W @ 12V A.C.
1500Plus Colour	9W @ 12V A.C.
Bao200	6W @ 12V A.C.
Bao600	12W @ 12V A.C.

In order to determine the transformer you need, use the following Transformer Sizing Calculation:

- Transformer output power (V.A) = (Wattage of light X number of lights X 1.2) **OR**
- Transformer output power (V.A) = (Total Wattage of lights X 1.2)

### Example

Transformer size for 3 X 500 Plus Lights Transformer size = (9Watts X 3 X 1.2) = 32.4 Watts

Minimum Transformer size = **32.4 V.A**

## Warnings

- Ensure that the main power supply is turned off before commencing with pool light installation.
- Eartheco pool lights are designed for under water use only.
- The light must be water cooled at all times. Do not turn the light on unless it is under water.
- It is normal for water to fill the rear portion of the light, including the rear terminal cap, as all electronic components are encapsulated by resin.

## Warranty

Product	Warranty Period	Warranty	Not Included in Warranty
Plus Series Lights	2-Year Warranty	All of our care and technical expertise have gone into the manufacturing of this product. It has been fully factory tested and strict quality standards have been applied at every stage of its production. For this reason we offer an extended warranty from the date of purchase which is subject to the product being used under normal operating conditions. This device is warranted for any manufacturing defects / faulty components when it has been used in a normal underwater installation.	The warranty will be deemed null and void if a voltage higher than 12 volts is applied to this product or is misused or abused in any way. Not included in the warranty: 1. Equipment and labour provided by a third party at the time of the installation of the product. 2. Damage caused by an installation that does not comply with local authority standards. 3. Damage caused by: accident, harsh treatment, negligence, non-authorized repairs, fire, lightning, frost, armed conflict or any other force of nature.
Bao Series Lights	3-Year Warranty		