

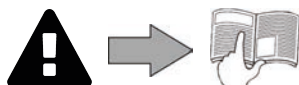
Led NL

Instructions for installation and use - English
Lighting
Translation of the original instructions in French

EN





More documents on:
www.zodiac-poolcare.com



WARNINGS



GENERAL WARNINGS

- Failure to respect the warnings may cause serious damage to the pool equipment or cause serious injury, even death.
- Only a person qualified in the technical fields concerned (electricity, hydraulics or refrigeration) is authorised to perform any servicing or repairs to the appliance. The qualified technician working on the appliance must use/wear personal protective equipment (such as safety goggles and protective gloves, etc.) in order to reduce the risk of injury occurring when working on the appliance.  
- Before handling the appliance, check that it is switched off and isolated.
- The appliance is intended to be used for pools and spas for a specific purpose; it must not be used for any purpose other than that for which it was designed.
- This appliance is not intended for use by persons (including children) having a physical, sensory or mental disability, or by persons lacking experience or knowledge of the appliance, unless they are first instructed or are supervised during the use of the appliance by a person responsible for their safety.
- Keep the appliance out of the reach of children.
- The appliance must be installed according to the manufacturer's instructions and in compliance with local and national standards. The installer is responsible for installing the appliance and for compliance with national installation regulations. Under no circumstances may the manufacturer be held liable in the event of failure to comply with applicable local installation standards.
- For any work other than the simple user maintenance described in this manual, the product should be referred to a qualified professional.
- Incorrect installation and/or use may cause serious damage to property or serious injuries (possibly causing death).
- All equipment, even postage and packing paid, travels at the risks and perils of the recipient. The latter shall issue reserves in writing on the carrier's delivery slip if damage is detected, caused during transport (confirmation to be sent to the carrier within 48 hours by registered letter). In the event that an appliance containing coolant has been turned on its side, mention your reservations in writing to the carrier.
- If the appliance suffers a malfunction, do not try to repair it yourself; instead contact a qualified technician.
- Refer to the warranty conditions for details of the permitted water balance values for operating the appliance.
- Deactivating, eliminating or by-passing any of the safety mechanisms integrated into the appliance shall automatically void the warranty, in addition to the use of spare parts manufactured by unauthorised third-party manufacturers.
- Do not spray insecticide or any other chemical (flammable or non-flammable) in the direction of the appliance, as this may damage the body and cause a fire.
- Zodiac® heat pump, filter pump and filter appliances are compatible with the most commonly used types of pool water treatment systems.
- Do not touch the fan or moving parts and do not place objects or your fingers in the vicinity of the moving parts when the appliance is in operation. Moving parts can cause serious injury or even death.

WARNINGS ASSOCIATED WITH ELECTRICAL APPLIANCES

- The power supply to the appliance must be protected by a dedicated 30 mA residual current device, complying with the standards and regulations in force in the country in which it is installed.
- Do not use any extension lead when connecting the appliance; connect the appliance directly to a suitable power supply.
- Before carrying out any operations, check that:
 - The voltage indicated on the appliance information plate corresponds to the mains voltage.
 - The power grid is adapted to the power requirements of the appliance, and is grounded.
 - The plug (where applicable) is suitable for the socket.
- In the event of abnormal operation or the release of odours from the appliance, turn it off immediately, unplug it from its power supply and contact a professional.
- Before servicing or performing maintenance on the appliance, check that it is powered off and completely disconnected from the power supply. Moreover, check that the heating priority (where applicable) is deactivated and that any other device or accessory connected to the appliance is also disconnected from the power supply.
- Do not disconnect and reconnect the appliance to the power supply when in operation.
- Do not pull on the power cord to disconnect it from the power supply.
- If the power cord is damaged, it must be replaced by the manufacturer, its technician or a qualified person to guarantee safety.
- Do not perform maintenance or servicing operations on the appliance with wet hands or if the appliance is wet.
- Before connecting the appliance to the power supply, check that the connection unit or socket to which the appliance will be connected is in good condition and shows no signs of damage or rust.
- For any component or sub-assembly containing a battery: do not recharge or dismantle the battery, or throw it into a fire. Do not expose it to high temperatures or direct sunlight.
- In stormy weather, disconnect the appliance from the power supply to prevent it from suffering lightning damage.
- Do not immerse the appliance in water (with the exception of cleaners) or mud.

WARNINGS ASSOCIATED WITH LIGHTING SYSTEMS

- For operation only with safety isolating transformer properly certified as being in compliance with the requirements of EN/IEC 61558-2-6 standard. 
- In Australia, lights must be powered by an Australian approved SELV driver/power source.
- In Australia, ensure that the lighting system is installed by a suitably qualified person only (e.g. Registered pool builder and/or qualified electrician), in accordance with AS/NZ 3000:2007 standards.
- Suitable for Maximum Depth of 4 meters.
- The external cable of this light cannot be replaced; if the cable is damaged, the light must be replaced.
- The light source contained in this light must only be replaced by the manufacturer or its service agent or a similarly qualified person.
- Do not look directly at the light source when lit. 

Recycling



This symbol means that your appliance must not be thrown into a normal bin. It will be selectively collected for the purpose of reuse, recycling or transformation. If it contains any substances that may be harmful to the environment, these will be eliminated or neutralised. Contact your retailer for recycling information.



- Before handling the appliance, it is essential that you read this installation and user manual, as well as the "Warranty" booklet delivered with the appliance. Failure to do so may result in material damage or serious or fatal injury and will void the warranty.
- Keep and pass on these documents for later viewing throughout the appliance's service life.
- The distribution or modification of this document in any way is prohibited, without prior authorisation from Zodiac®.
- Zodiac® is constantly developing its products to improve their quality. The information contained herein may therefore be modified without notice.

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Tip: to make it easier to contact your retailer

- Write down your retailer's contact details to help you find them more easily and fill in the "product" information on the back of the manual; your retailer will ask you for this information.



1 Specifications

1.1 I Description

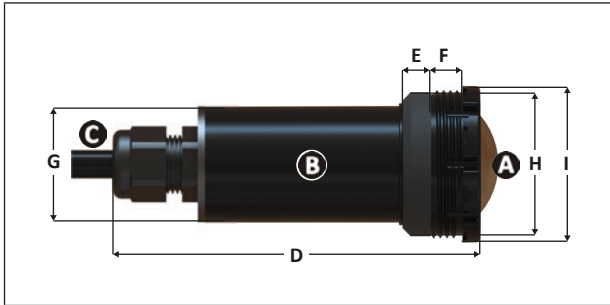


		RGBW colour			Pure white		
		6RGBW	12RGBW	24RGBW	6BW	12BW	24BW
A	NL spotlight + protective cover		✓			✓	
B	Wrench		✓			✓	
C	White & grey cosmetic trims		✓			✓	
D	Colour chart		✓				

1.2 I Technical specifications

NL Spotlight	6RGBW	12RGBW	24RGBW	6BW	12BW	24BW
Type	Colour & white (RGBW)			Pure white		
Power supply	12VAC - 50/60Hz					
Min-max voltage tolerances	10 - 14 VAC					
Length of power cord supplied	3 m					
Maximum power (W)	6	12	24	6	12	24
Amperage (A)	0.52	0.92	1.25	0.62	1.09	1.84
Minimum transformer capacity (per spotlight)	6 VA	12 VA	24 VA	6 VA	12 VA	24 VA
Luminous flux (Lumen)	158	339	504	386	722	1,180
Thread Ø	1.5"					
Protection index	IP68					
Conditions of use	Fresh or salt water (6g/L - 6,000 ppm) < 40 °C					

1.3 | Dimensions and marking



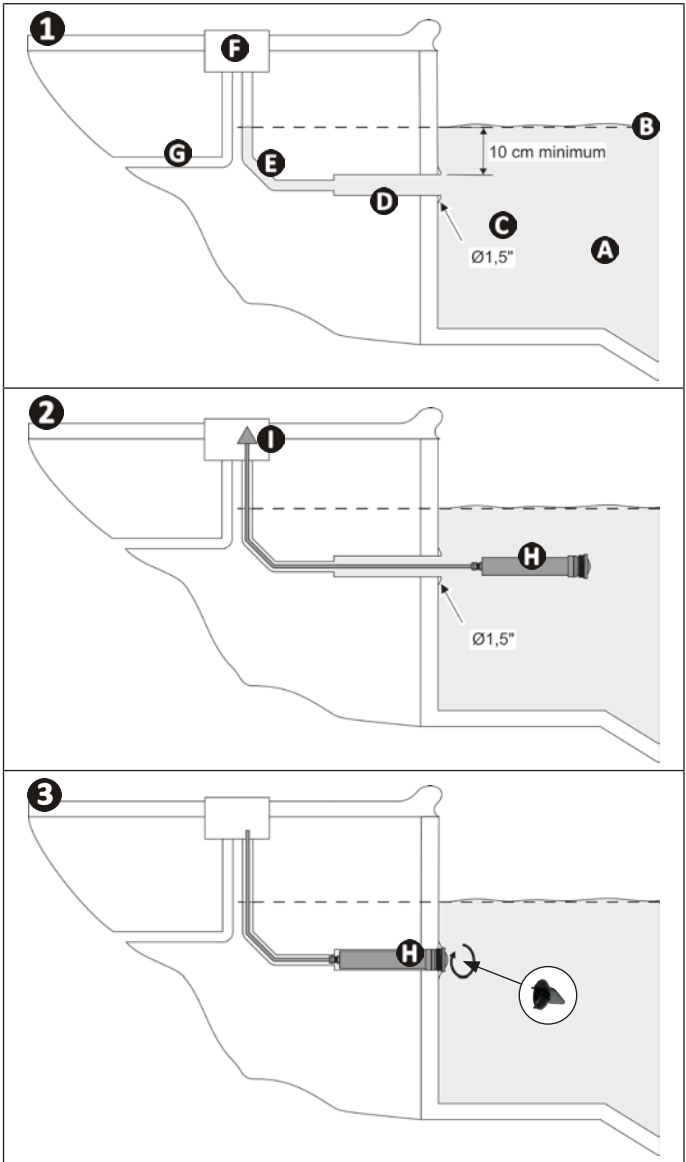
	NL Spotlight	6RGBW	12RGBW	24RGBW	6BW	12BW	24BW
D	Length	118 mm	143 mm		118 mm	143 mm	
E	Gasket	9 mm					
F	Thread	10.2 mm					
G	Body Ø	37 mm					
H	Gasket Ø	45 mm					
I	Outer Ø	49.5 mm					

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2 Installation

2.1 | Layout



- A:** Pool
- B:** Maximum water level
- C:** Wall fitting $\varnothing 1.5''$
- D:** Wall bushing
- E:** Watertight duct $\varnothing 2.5$ cm minimum
- F:** Junction box
- G:** Duct to equipment room transformer
- H:** NL Spotlight
- I:** Spotlight wire



- Each spotlight must be installed at a minimum depth of 10 cm below the water level.
- The lower cable gland(s) of the junction box for each spotlight must be positioned above the pool's maximum water level.

2.1.1 Preparing the pool before installation

- Install each spotlight in a wall bushing fitted with a "suction port"-type thread of diameter $\varnothing 1.5''$, provided for this purpose during pool construction (see image ①).
- The duct or conduit located between the back of the wall bushing and the junction box must be watertight because the spotlight is submerged.
- For a optimum pool lighting, each spotlight wall bushing should be positioned 30 to 50 cm beneath the water level (distance between the top of the lens and the water level).

2.1.2 Installing the appliance

- Slide the power cord through the watertight duct to the junction box (see image ②).
- Wind any excess cord away inside the junction box and conserve sufficient length for any operations to be performed at a later time.
- Draw the cable and insert the spotlight until it is flush with the wall bushing (see image ③).
- If desired, install the white or grey cosmetic trim.
- Using the wrench provided, screw the spotlight inside the wall bushing until tight (see image ③). The spotlight's façade must be properly adjusted to the discharge nozzle.

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Tip: for easier screwing

- Apply a silicone-based lubricant to the thread.



2.2 | Power supply connections



- For operation only with safety isolating transformer properly certified as being in compliance with the requirements of EN/IEC 61558-2-6 standard. 
- Before carrying out work on the appliance, you must first disconnect the appliance from the power supply due to the risk of electric shock, which may cause material damage, serious injury or even death.
- Incorrectly tightened terminals may cause the terminal unit to heat up and invalidate the warranty.
- The cord and the junction box connection device for the spotlight must not be completely removed from the duct or pool. There must be enough cord length in the junction box to allow the box's spotlight to be removed from the wall bushing and lifted out of the water in order to replace the spotlight's cartridge.
- Only a qualified and experienced technician is authorised to carry out cabling work or to replace the power cord.

- The spotlight's power supply must be provided through a 12 VAC transformer (not supplied) complying with the standards and regulations in force in the country in which it is installed.
- Electrical protection: by circuit breaker (D curve) (for rating, see § « 1.2 | Caractéristiques techniques »), with a 30 mA dedicated residual-current protection system (circuit breaker or switch) at the head of the line.
- The power supply must correspond to the voltage indicated § « 1.2 | Caractéristiques techniques ».
- The power cord must be protected and insulated from any sharp edges, pressure or hot elements which may crush, cause abrasion, cuts or other damage to it.
- The electrical wiring must be properly secured from being subjected to unnecessary movement and strain on connections.
- To connect the 12 VAC transformer to the junction box for each spotlight, use the power cord (RO2V type) adapted for outdoor or buried use (or run the cable into a protection duct).

2.2.1 Connecting to an external controller

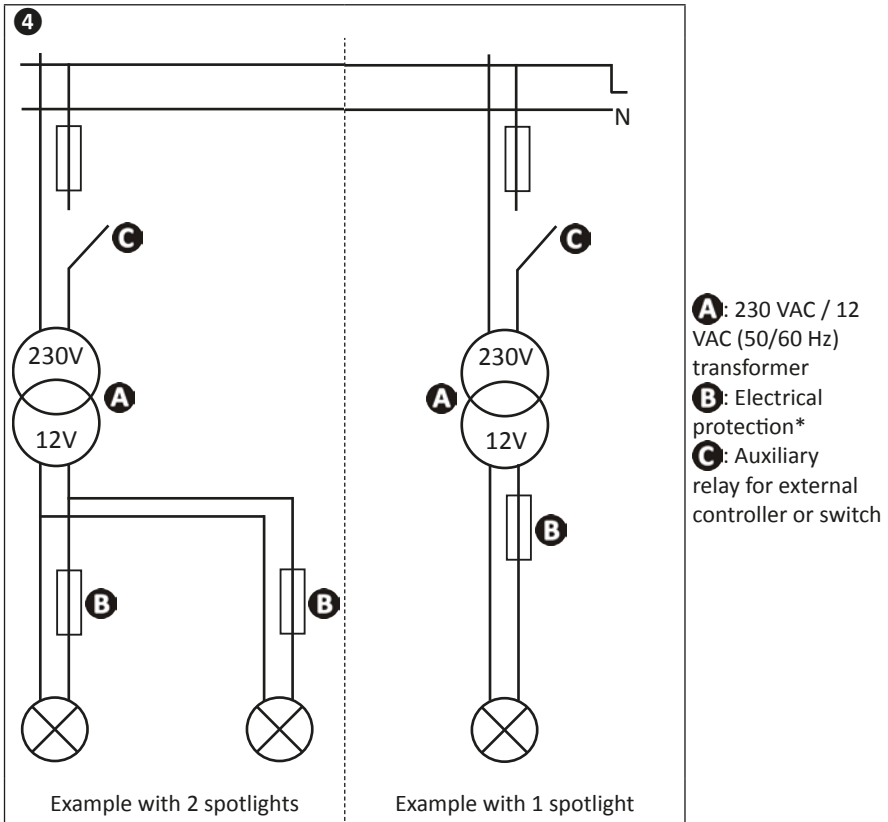
The NL spotlight is compatible with certain types of remote control systems for pools. It has been in particular specially designed to operate with the Zodiac® AquaLink® TRI, eXO® iQ (LS) or Hydroxinator iQ systems using the iAquaLink™ app.

- Connect the transformer powering the NL spotlight(s) to one of the auxiliary relays of the external controller (see image 4).

2.2.2 Connecting to a switch

The NL spotlight can be connected to a switch for manual operation.

- Connect the transformer powering the NL spotlight(s) to an auxiliary relay of the switch (see image 4).



*see " 1.2 | Technical specifications" to define the rating



3 Use

3.1 | Operating principle

LED technology is a lot more powerful, has a much longer lifespan and consumes less energy than incandescent or halogen spotlights.

RGBW LEDs provide luminous atmospheres created by combining white, blue, red and green LEDs (9 unchanging colours and 5 coloured light shows).

The NL spotlight is compatible with the iAquaLink™ app, allowing you to control it using your smartphone when connected to the AquaLink® TRi, eXO® iQ (LS) or Hydroxinator iQ.

This spotlight is designed for cavity-free installation for compatibility with cleaners able to climb the pool's walls.

3.2 | Operation

3.2.1 Synchronising the spotlights (for RGBW models only)



- All spotlights must be connected to the same transformer and to the same switch (or auxiliary relay) for synchronisation to be possible. If multiple switches are used, these must be configured simultaneously.

To synchronise the spotlights to the same colour mode, the spotlights must be reset to the first default mode: "Alpine white".

- Switch the spotlights on (the colour modes may be different at this stage as they have not yet been synchronised).
- Switch off the spotlights for 5 seconds, then switch back on.
All spotlights will become synchronised in the first default colour mode.

Repeat this step if synchronisation has not occurred, making sure you comply with the required off time.

3.2.2 Using the spotlight(s)

White spotlights operate in a simple "on/off" mode.

They are switched on or off using the switch or auxiliary relay.

To change colour mode with RGBW colour spotlights:

- Switch the spotlight(s) off for 2 seconds at most, then switch back on.
- Repeat these "on/off" steps until you reach the desired colour mode (see table 9 or the "colour chart" provided with RGBW colour spotlights).

Example: After following the steps above, if the current colour is "Sky Blue", you must successively switch the spotlight off and on again 7 times to reach the colour "Violet".

Sequence	Colour mode
1	Alpine white
2	Sky blue
3	Cobalt blue
4	Caribbean blue
5	Spring green
6	Emerald green
7	Emerald rose
8	Magenta
9	Violet
10	Slow color splash (all colours alternate for an electric atmosphere)
11	Fast color splash (1,500 colours alternate for an electric atmosphere)
12	America (alternating blue, white and red)
13	Mardi gras (all colours alternate for a lively atmosphere)
14	Disco Tech (all colours alternate for a lively atmosphere)

The RGBW colour spotlights have a memory.

If they remain switched off for more than 8 seconds, they roll back to the last colour mode used when next switched on.

This prevents you from having to repeat the "on/off" procedures to switch the spotlights back on to your preferred colour mode.



4 Maintenance

4.1 Winterizing



- In the event of the risk of freezing temperatures, the pool must be winterised and the water level must be lowered to below the spotlight(s).


- Lower the water level to about 10 cm below the pool's spotlight(s).
- Check that the water is drained from the wall bushings and connected ducts. Uncrews light(s) if needed.
- Check the junction box(es) to make sure that they are protected from water and humidity.





5 Troubleshooting

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- Before you contact your retailer, please carry out these few simple checks using the following tables if a problem occurs.
- If the problem continues, contact your retailer.
-  Actions to be performed by a qualified technician only.

5.1 Appliance behaviour

None of the spotlights can be switched on	<ul style="list-style-type: none"> • The spotlight(s) are not receiving a power supply. •  Check the 230 VAC transformer power supply. Check the 12 VAC transformer output. Check the circuit breaker. Check that the spotlight(s) have not been connected directly to a high-voltage power supply. This will doubtlessly result in damage not covered by the warranty.
One or more spotlights have low illumination, flicker or do not work	<ul style="list-style-type: none"> • Poor connection or unsuitable cable size. •  Separate each spotlight and connect a single spotlight at a time to the 12 V power supply. Repeat this process for each spotlight. If a junction box is used, check the connection of the wire from the spotlight. Check that the correct cable size is used between the transformer and the junction box(es).
The spotlights are not synchronised	<ul style="list-style-type: none"> • Reset all spotlights to the "Alpine white" colour mode by switching off all spotlights for 5 seconds, then switching them back on.
The spotlight flickers	<ul style="list-style-type: none"> • The spotlight is too hot. • Check that the spotlight is submerged in the pool water, the temperature whereof does not exceed 40 °C.

Votre revendeur
Your retailer

Modèle appareil
Appliance model

Numéro de série
Serial number

Pour plus d'informations, enregistrement produit et support client :
For more information, product registration and customer support:

www.zodiac.com

