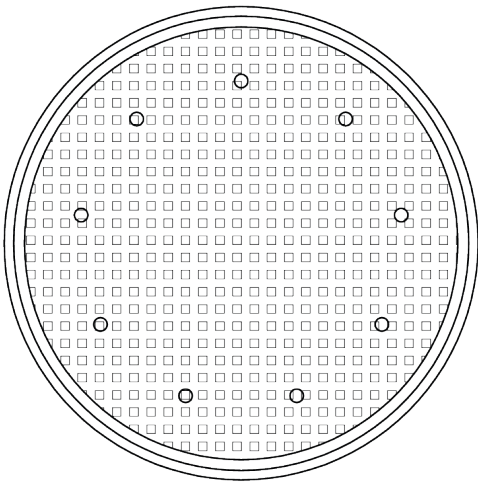


LL0291-W

LL0291-RGB

User's Manual

30W PAR 56 LED lamp for lighting pools and fountains



WARNINGS

This unit should only be used for purpose for which it has been intended and should be installed using the instructions which are provided. Arena Luci cannot be held liable for damages to person, animals or objects as a result of improper, unreasonable and wrong usage.

This instruction manual contains important information about the installation and use of the projector. Please read and follow these instructions carefully.

The security of this device is guaranteed only with the proper use of the following instructions, therefore they must be kept carefully.

Never install the device in locations easily accessible by people who ignore the existence of this user's manual and safety instructions.

For the wiring please refer to enclosed wiring diagrams. If in the diagrams indicated there should not be that of your application, contact the technical office.

The device is intended exclusively for a submerged installation.

Disconnect the unit from any power supply before attempting any operation in contact or inside the unit, and when not in use.

It is essential that electrical installation conforms to all relevant standards.

When assembling make sure that the cable glands are tightened for a watertight seal.

The device cannot be installed at a depth greater than 0.5 meters.

The lamp is intended only for underwater

operation. Do not switch on the lamp outside the water for more than 10 seconds.

Never install the device in areas where there is no constant water flow; the maximum temperature must be below 40°C.

Prior to connect the unit to the mains supply, check the output voltage fits the technical requirements on the label.

Never let the power cord come into contact with other cables.

Never touch the electrical contacts, either directly with your fingers, or indirectly by means of sharp or metal objects.

Make sure that cables cannot cause trip hazard.

Do not attempt to dismantle and modify the unit.

Due to the high technological level of this unit, any service maintenance should be performed by specialised operators. Please contact your Arena Luci dealer for any operation.

Always ensure that the structure to which you are attaching the unit is secure and is able to support the weight of each unit.

LED module is not replaceable.

Do not use any solvent based cleaning agents.

Use only a soft, dry anti-static cloth.

The installation of LED modules (including power supplies) should be done according to current technical rules and regulations. The installation should be performed only by a qualified operator.

Avoid contact with either corrosive agents or humidity and moisture on delicate elements: damages from corrosion are not refunded as component defects.

Please note that as part of Arena Luci's ongoing commitment to continuous product development, specifications are subject to change in the course of product improvement without notice. Arena Luci is not responsible for damages resulting from improper or different use than expected.

INSTALLING THE DEVICE

Installation can only be carried out by mounting the specific flush-mounted box and only in immersion: to avoid damaging the appliance, it cannot be operated outside the water for more than 10 seconds.

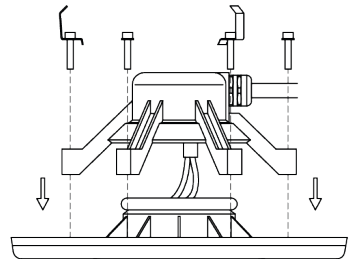
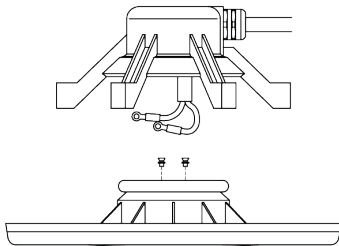
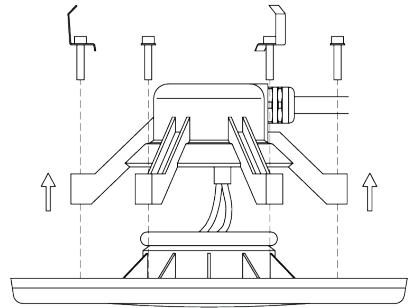
Remove the power supply voltage to the system. Remove the lamp-holder cover from the edge of the pool and place it on a rigid surface, with the lamp-holder facing upwards; remove the cap from the cover by unscrewing the M6x35 Allen screws. Remember the position of the three seal springs and the three rosettes for subsequent reassembly. When lifting the cover, remove the O-ring 91.5x11.5 and place it on the surface. Replace the existing lamp by disconnecting it from the hood's electrical conductors; rest the new LL0291 lamp in the center of the hole in the PAR 56 headlight cover, holding the rear part of the lamp upwards and place the OR seal 91.5x11.5 above the lamp, keeping it as central as possible.

Connect the eyelets of the power supply wires coming out of the lamp door to the M4x8 screw terminals on the back of the lamp body. There is no polarity to respect as the lamp requires a 12V supply in alternating voltage.

For greater safety, in the unfortunate hypothesis of degeneration of the watertightness of the assembly and to

avoid consequent oxidation, corrosion and short-circuit phenomena, it is necessary to fill the cavity where the lamp power supply terminals are housed with an insulating waterproofing resin, to cover completely the electrical contacts. The resin code is RESINA015.

Close the lamp cover over the lamp taking care to center the O-ring 91.5x11.5 in the housing provided in the shell itself, in order to guarantee water tightness. The wires connecting to the lamp must be kept and folded inside the shell. Re-tighten the M6x35 cap fixing screws, respecting the original positions of the washers and the sealing springs.



POWER SUPPLY

If you need more than one junction box to carry out the electrical distribution, the connection of the LED head power cable to the power supply line must in any case be made in a junction box with adequate IP protection characteristics depending on the location of installation. The junction boxes are to be laid outside zone 1, as required by the CEI 64-8 / 7 Italian standard. If the transformer is placed inside the same junction box, the latter must be outside the zone 2.

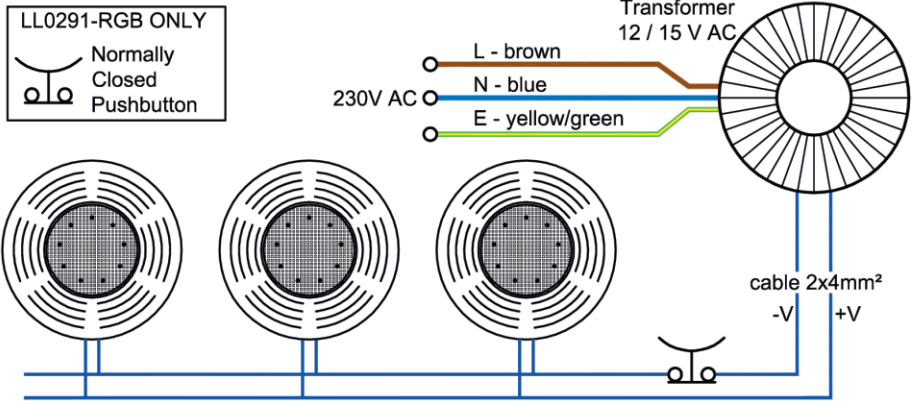
The lamp can operate with voltage from 12 to 15 V AC and with frequencies of 50 and 60 Hz. No type of setting is necessary, it is set automatically based on the voltage and frequency of the power supply detected. The power supply cable must be of the special type in neoprene type HO7RN-F, suitable for immersion applications and in compliance with the most recent regulations.

The choice of the transformer must be made on the basis of the total power absorption of all the equipment connected in the same ignition group; once this value is obtained, the most appropriate transformer size can be chosen. Both laminated and toroidal transformers are indicated.

It is advisable to leave a margin of at least 25% lower than the maximum load of the chosen transformer.

Connect the transformer to the mains socket, respecting the indicated L-N-E polarity (brown colors = L, blue = N, yellow / green = E). Check that the output voltage of the transformer is compatible with the specifications of the device. Connect the transformer outputs to the device power cable. It is not necessary to respect any polarity, since the lamp operates in alternating voltage. For multiple connections of LED illuminators it is recommended to use sections of at least 4mm² or larger based on the calculation of the voltage drop.

Connect the transformer to the mains by means of a thermomagnetic-differential switch.



OPERATION

The RGB version of the lamp (code LL0291-RGB) has 16 preset color combinations, i.e. it is possible to automatically execute scenes programmed in the unit's internal memory. To modify the scene in execution it is sufficient to interrupt the supply line for a specified time: in this way the steps stored in the device are sequentially reproduced one after the other. Connect a normally closed button in series with the lamp power line, as shown in the diagram above. The lamp keeps the running function in memory when it is turned off. Press the button for 0.5 seconds and release it to advance the steps.

Press the button for 1.5 seconds and release it to return to step 1.

To facilitate use, even from a distance, and the synchronization of several lamps, it is possible to use the optional control system with radio control (code LC2041).

The following table shows the automatic functions of color variation.

Step	Function	Description
1	White	Static White
2	Pink	Static Pink
3	Yellow	Static Yellow
4	Red	Static Red
5	Magenta	Static Magenta
6	Blue	Static Blue
7	Cyan	Static Cyan
8	Water Green	Static Water Green
9	Green	Static Green
10	Cold White	Static Cold White
11	3 flashes Blue	Slow color change - no crossfade
12	3 flashes Red	Fast color change - no crossfade
13	3 flashes Blue	Dynamic crossfade Blue - Cyan - White
14	3 flashes Green	Dynamic crossfade Green - Purple - Blue
15	3 flashes White	Slow dynamic crossfade all colors
16	3 flashes Magenta	Fast dynamic crossfade all colors

MAINTENANCE AND PERIODICAL CHECKS

Mechanical parts

Check that the projector is not mechanically damaged.

Clean the projector glass regularly using a soft cloth.

Carefully check the gaskets that ensure resistance to water and dust and, if necessary, contact the service center for replacement of the deteriorated parts.

Electrical parts

Check the electrical connections, in particular the earthing and the correct insertion of the removable connectors, press them if necessary and put them back as they were originally.

Check that there is no oxide on the electrical contacts, if necessary remove it using suitable products and tools.







Replacement parts

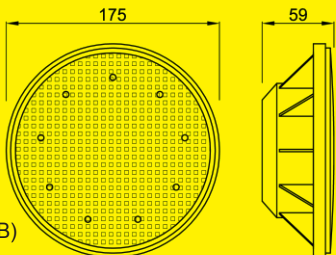
All spare parts of the equipment can be found at a service center.

TROUBLESHOOTING

Below are some of the most frequent problems with some of their possible solutions.

<i>Problem</i>	<i>Possible solution</i>
The lamp does not light	Check for the presence of mains voltage Check the electrical connections and the operation of the transformer
The lamp has moisture formation	Disconnect the power supply immediately and contact the service center
The lamp emits little light	Check that the front glass is clean

		TECHNICAL SPECIFICATION
V	Power supply	12V-15V AC
A	Current	2.5 A max
W	Power consumption	30W max
	Connection	Screw clamps for eyelets
	Source	9 Power LED
	Beam aperture	Wide Flood
lm	Luminous flux	1800 lm (LL0291-W) - 1015 lm (LL0291-RGB)
	Material	Polycarbonate
	Color	White
KG	Weight	370 g (LL0291-W) - 380 g (LL0291-RGB)
IP	Protection	IP68
	Suitable to be fitted on normally flammable surfaces	
Applied standards		RoHS CE



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WARRANTY CONDITIONS

The unit is guaranteed for 24 months from the date of purchase against defects in workmanship or materials that compose it.

This warranty does not cover faults due to incorrect or improper use of the device.

The warranty is immediately void if the unit has been tampered with or opened by unauthorized personnel.

The warranty provides, at the discretion of Arena Luci, repair or replacement of faulty equipment.

The serial number and model of the device are required to obtain information or assistance from the dealer. We invite you to transcribe them in time: for any request of information or services, this will result in a quick and effective operation.


CE RULES

The device meets the essential requirements of the Directives *LVD* 2014/35/UE, *EMC* 2014/30/UE, *RAEE* 2012/19/UE, *RoHS* 2011/65/UE, *Ecodesign*

2009/125/CE - reg. (UE) 1194/2012, *Energy label* 2010/30/UE - reg. (UE) 874/2012 - reg. (UE) 518/2014, *GPSD* 2001/95/CE.

Warnings

Disposal of Old Electrical & Electronic Equipment (applicable in the European Union and other European countries with separate collection systems).

 The product shall not be treated as household waste but must be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is correctly disposed, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your city office, your household waste disposal service or your supplier.

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