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# Rabenur

## Color Changing Pool Light

### FOR CONCRETE & GUNITE POOL

# Installation Guide

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL

INSTRUCTIONS

SAVE THESE INSTRUCTIONS

#### CONTENTS

#### NOTE

NICHE COMPATIBLE WITH THESE POOL LIGHT SERIES: 3/4 inch PC tube

## WARNING

Please be careful to install it under the guidance of an electrician.

Rabenur pool lights are NOT rated for bottom upward-facing applications in swimming pools and spas.

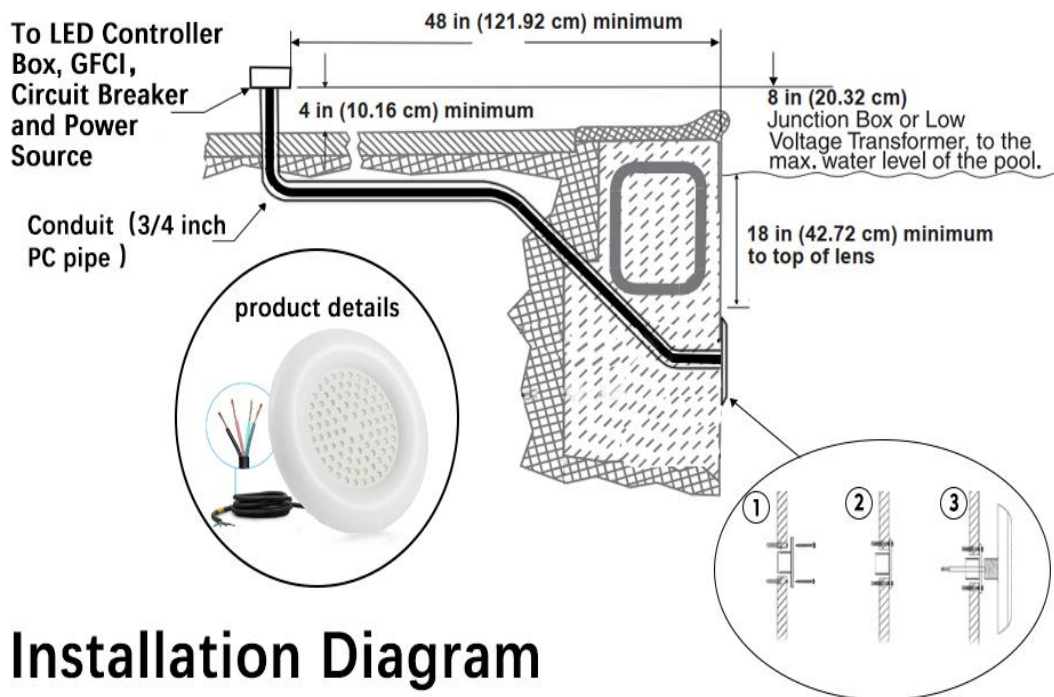
These waterproof pool lights only support 12V DC, please do not install it on AC 12 or other voltage.using other specifications of the voltage will cause irreversible damage to the product.If you have any other questions, please feel free to contact us.

#### Important Notice

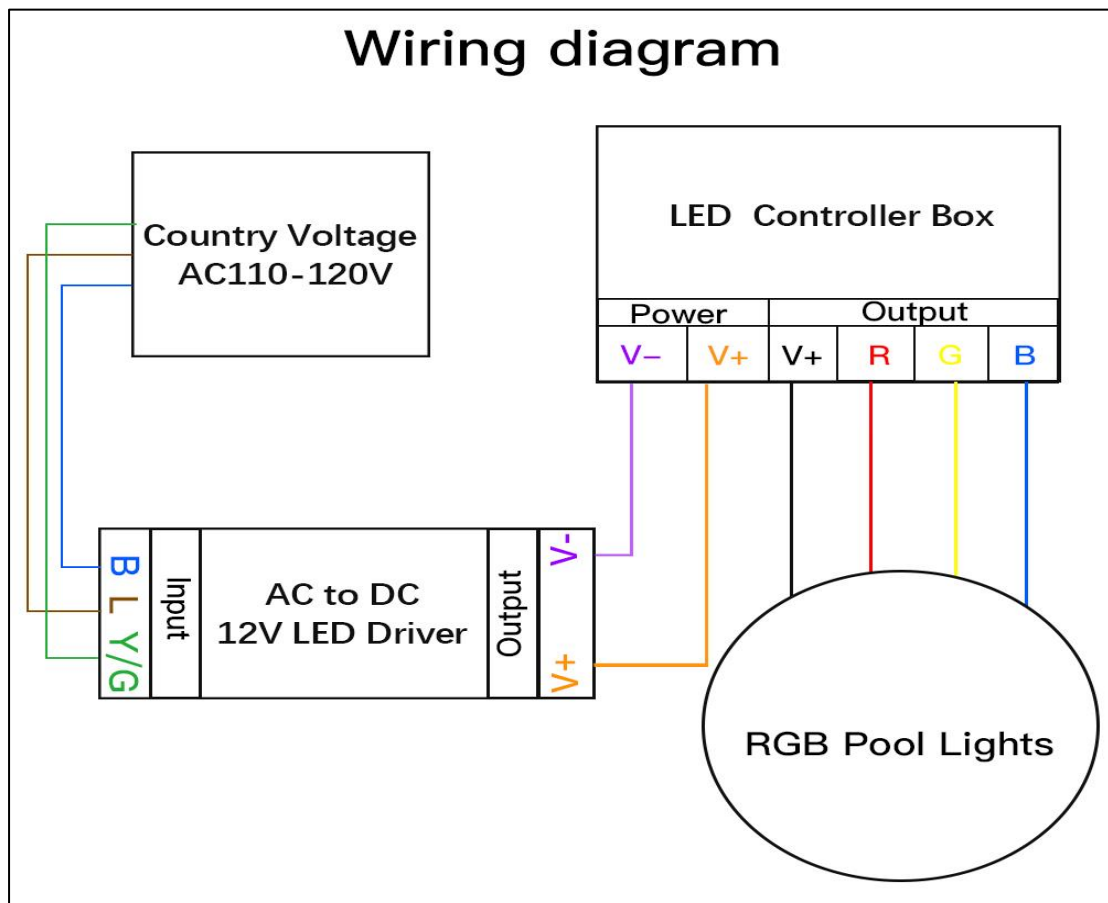
This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.

The premise of color change freely of pool lights must be used with RGB controller equipment, before installation, please ensure that you have these controller devices (**Model: Rabenur LED Controller Kit**), And following the user manual and wiring diagram guide to complete the installation.

# Installation Diagram



## Installation Diagram



## Notes for the Rabenur LED controller Kit

Reference wire specifications for wiring/extension:18-20AWG;  
Do not place the Remote Control and the LED Controller box underwater;

NOTE that this matching method is suitable for the following controller devices:  
Rabenur LED Controller Kit,

DO NOT apply to the Rabenur APP Controller Kit.

## How to use?

### 1.Match the code of remote control box :

The controller box can be controlled by remote controls, firstly, you need to match the controller with remote control. The controller box can be controlled by remote controls, firstly, you need to match the controller with remote control.

### 2.When matching code, you need to use "match"with "DIP".

In the working process of controller, if the first dial is "on", press the "Match"key, and then press on/off key on remote control, if the indicator "Signal"flashes, that means the address code is matched successfully, other three groups is the same.



1.The four wires in the pool lights fixture, which must connect to the four ports on the remote control unit, can be via remote control to freely change the color of the light.

2.When matching the code, you need to use"match" with"DIP."In the working process of the pool light kit, if the first dial is"on," press the"Match" key, and then press the on/off key on the remote control; if the indicator"Signal" flashes, that means the address code is matched successfully, other three groups is the same.

3.Connect the load wire at first, followed by the power wire; please ensure short circuit can not occur between connecting cable before you turn on the power;

4.When you do not use the touch remote control for a long time, we suggest you take down the batteries.

5.The touch remote control can control four 2.4G remote control devices to meet the needs of various methods simultaneously to achieve the purpose of controlling multiple RGB pool lights.

## Controller Instruction for use :



1. Antenna: 2.4G remote control signal receiving antenna
2. Function: on/off and mode key, long press the button, use turn on/off the output of controller short press the button, switch the mode;
3. Match: match code key, refer to 4 for use methods; clear code, in the process of using controller, if you no longer want to use the remote control that already code, then you can achieve it by clearing system, methods of operation: the controller is powered off, press and hold"Match" key, then power on, test it with remote control, if you could not control with the remote control, indicates the operation is successful, otherwise repeat this operation;
4. DIP:as shown in Figure. It is used for matching four groups of address codes of the controller;
5. Power: power indicator, it lights when connected with external power supply;
6. Signal: RF signal indicator, it flashes when receiving the correct remote control signal;
7. Input/Output interface:  
The controller power supply input and load output port Remote Control Direction for use:  
The controller can be controlled simultaneously by four remote controls, When matching code, you need to use"match" with"DIP". In the working process of the controller, if the first dial is"on", press the"Match" key, and then press on/off key on the remote control, if the indicator"Signal" flashes, that means the address code is matched successfully, other three groups is the same.

## QA

### Question 1:

After using the correct transformer for installation wiring, how to calculate the maximum number of pool lamps that the control device system can control?

Answer:

1. In the circuit, the maximum power supported by the controller device is 360watts, this means that the total power of all lamps in the circuit must not exceed 360W.

2.If you purchased 20 pool light fixtures of 42w and want to control them with only one controller; Then you need to buy an additional RGB amplifiers device, add additional correct transformers, and connect them in parallel correctly.

Regarding wiring installation, I recommend installation under the guidance of a professional electrician.

### Question 2:

How to enhance the three-color signal load of the controller in the circuit? When you plan to install multiple RGB pool lights in the circuit, and the total power of the RGB pool light fixtures exceeds the maximum power of the controller, how to build a pool light system that meets the circuit load without adding a controller?

Answer:

In this case, it is necessary to add an RGB power amplifier to the controller to increase the load capacity of the three-color (RGB) signal of the controller in the circuit.

So that'll meeting the RGB signal load in the circuit, and ensure the stable operation of the RGB pool lights under the controller device.

### Question 3.:

How to choose your 110V AC to 12V DC Transformer/Led Driver for your Controller?

Answer:

1.Calculate the total wattage of your light or fixtures in your plan.

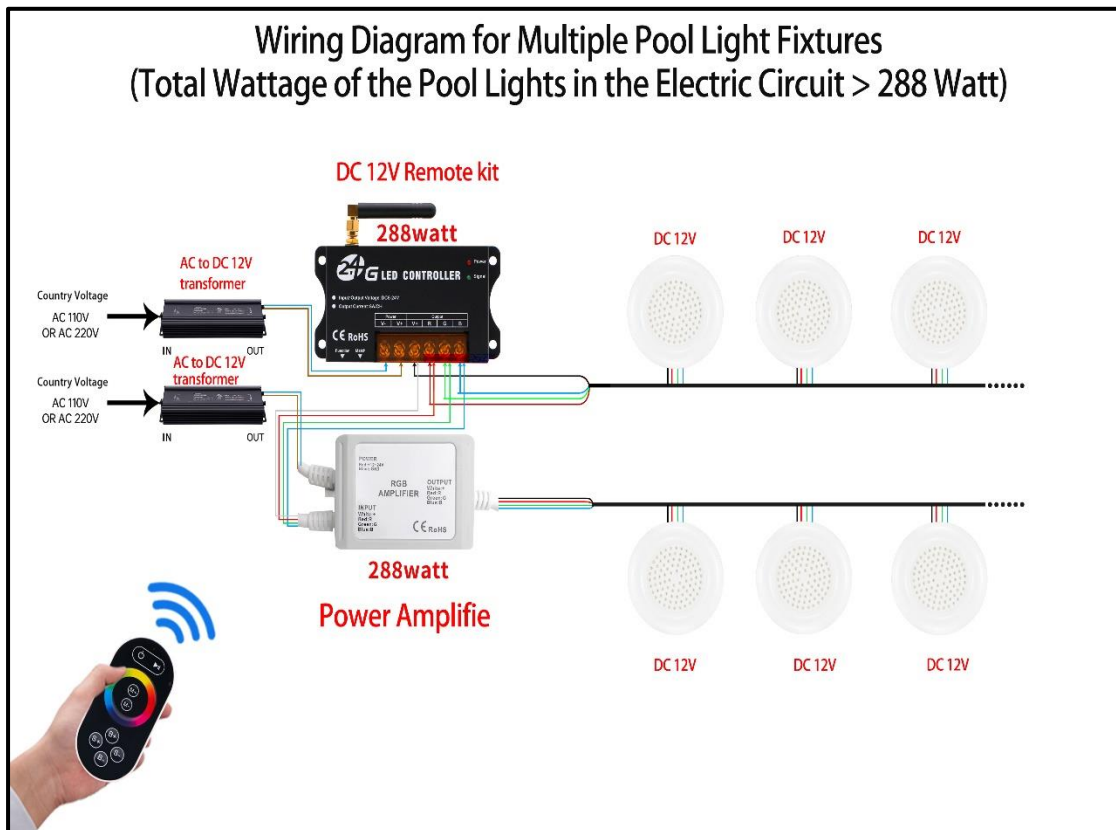
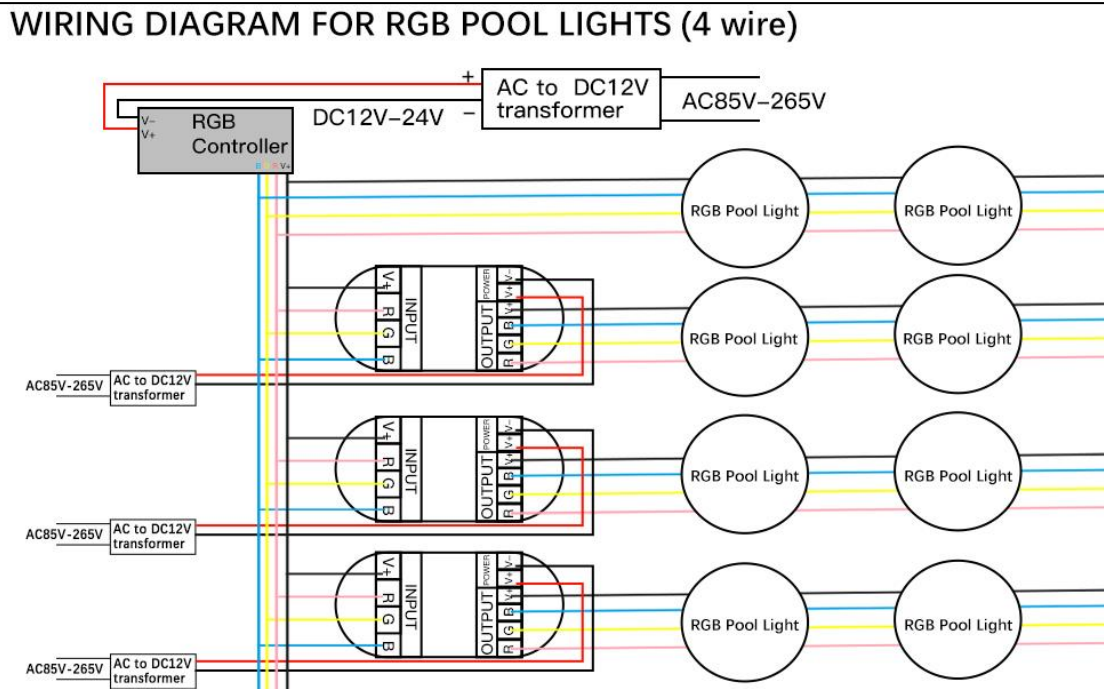
2.Choose the transformer that is large enough to support the total wattage you need.

3.The transformer wattage load (The total wattage of the lights or fixtures) should be within 80% of the rated capacity of the transformer.

4.For example: if you have 5pcs 35W Pool lights, the total wattage is 175watts, then you must choose the transformer higher than 218W( $218W=175W/0.8$ ).

# Wiring Diagram

1. Wiring diagram for adding RGB amplifiers to the circuit of more than one RGB pool lights.



# QA

## Question :

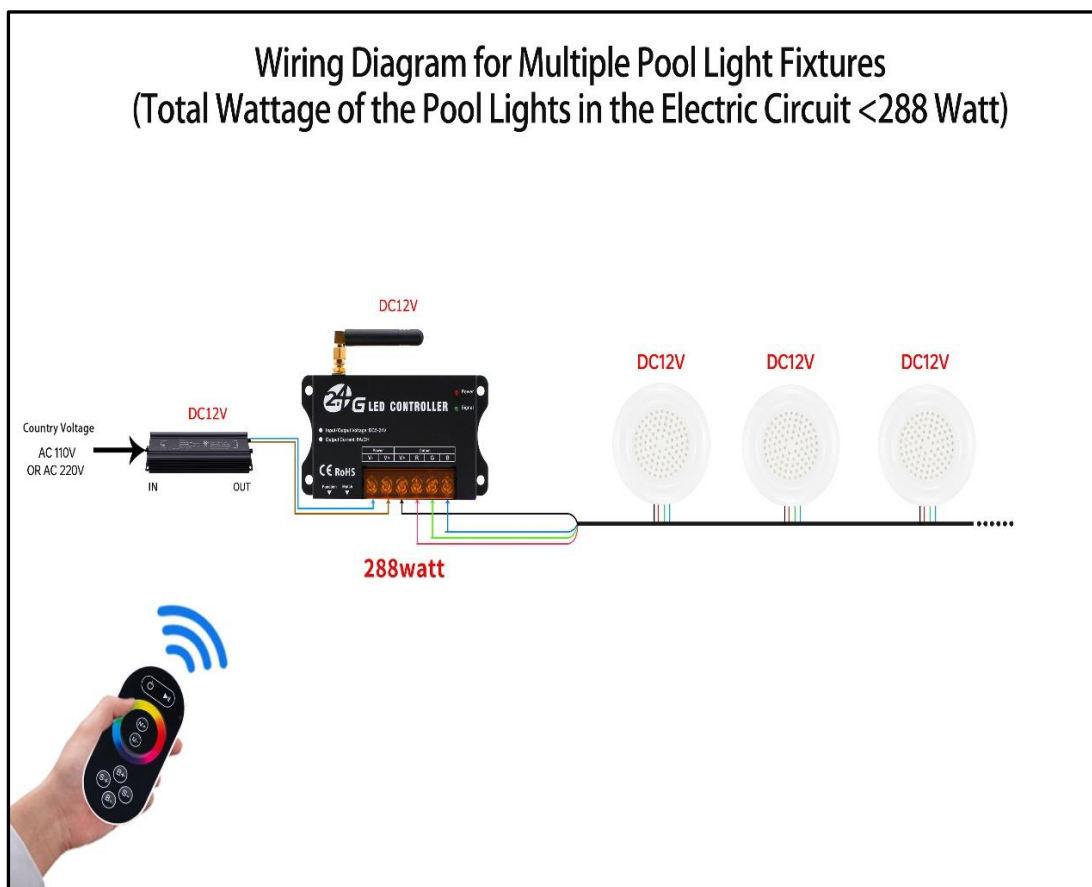
How to enhance the three-color signal load of the controller in the circuit? When you plan to install multiple RGB pool lights in the circuit, and the total power of the RGB pool light fixtures exceeds the maximum power of the controller, how to build a pool light system that meets the circuit load without adding a controller?

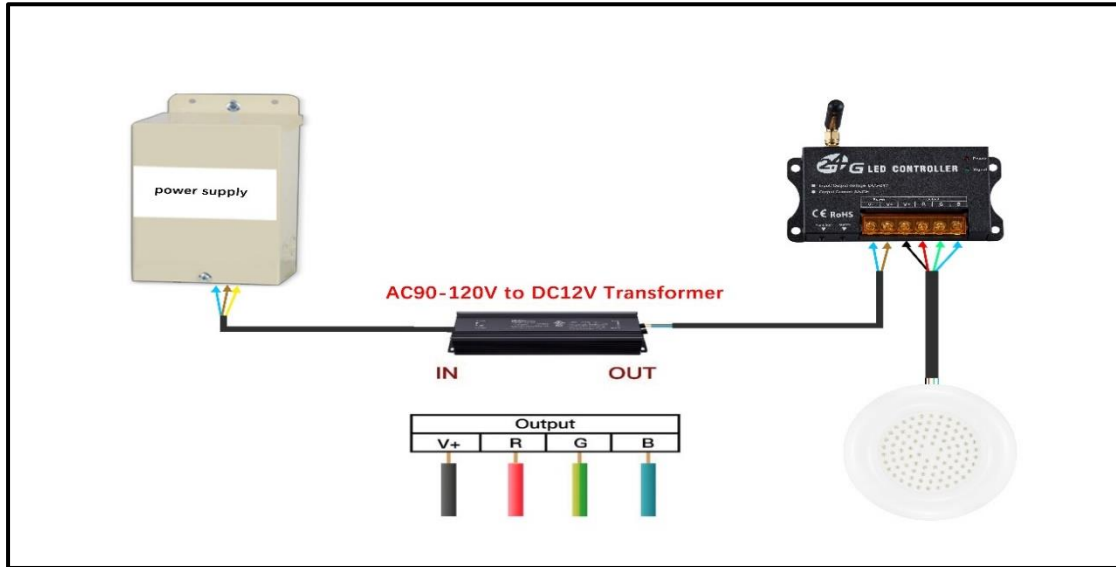
## Answer:

In this case, it is necessary to add an RGB power amplifier to the controller to increase the load capacity of the three-color (RGB) signal of the controller in the circuit.

So that'll be meeting the RGB signal load in the circuit and ensure the stable operation of the RGB pool lights under the controller device.

2. Wiring diagram for a circuit in which the total power of the circuit is less than 288w.





## 3-Step Setup

1. Wiring the lamps to the controller box
2. Putting alkaline batteries in the remote control
3. In the working process of controller, if the first dial is "on", press the "Match" key, and then press on/off key on remote control, if the indicator "Signal" flashes, that means the address code is matched successfully, other three groups is the same.

