



Specification of LED Par56 Pool Light

1. General Introduction:

PAR56 LED Spa Pool lights are widely used for replacement the halogen bulbs in the pools or spa; It is available in stainless steel, aluminum, and full pc (plastic).

It can transform your pool in bright and colorful and pleasant atmosphere. The PAR56 pool underwater light is with Cree high power chips, or other high brightness SMD, it can be in single color or RGB color. At the same time it provides added safety when swimming in the evening or walk nearby the pools.

The underwater swimming pool lighting is connected to a transformer which converts the electrical energy to 12V; it is very safety for used underwater.

The LED Swimming Pool Lights produce a soft and pleasant glow in the swimming pool, they are energy-efficient and have an operating life of more than 50,000 hours.

The lighting can also be set to produce a fixed glow in red, green, blue or white or RGB. For the RGB colors, it can be worked in DMX, or RF remote control or WIFI controlled.

Then it is very convenient to control it in different way.

Item: GNH-Par56-

Power:25W; 21W; 19W; 18W;15W;36W;26W;13W;33W;20W

Date: Jan. 7th, 2016



Stainless Par56



Full PC Par56



Aluminum Par56



2. Product Introduction

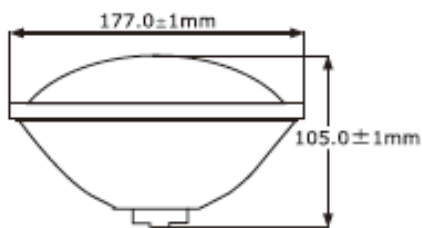
Characteristics

- 2.1 Super Bright LED.
- 2.2 Easy to install..
- 2.3 IP rating: IP68 Water-proof.
- 2.4 High quality 316(V4A) stainless steel lamp body with good heat dissipation
- 2.5 Applicable in chlorine (fresh) or Salt (sea) water.
- 2.6 RGB DMX512 control or other external control etc.
- 2.7 Single color is available: pure white, warm white, cool white, red, green, blue, etc.
- 2.8 Input voltage in AC/DC12V 50-60Hz, safe to use in underwater.

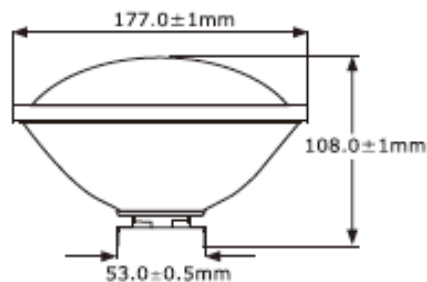
3. Specifications, parameters

3.1 Dimensional Drawing:

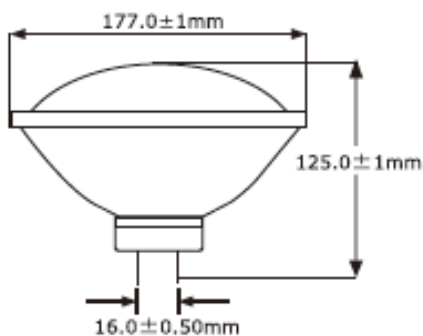
(1) Screw Terminal dimension



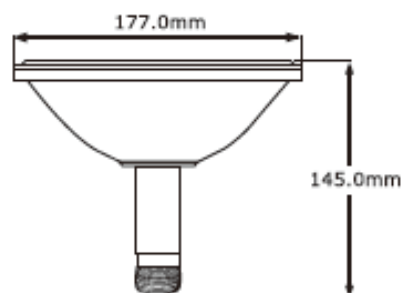
(2) G53 base dimension



(3) GX16D base dimension



(4) E27 base dimension



**3.2 LED lighting technical parameters (***) Note: working temperature is -10-45°C)**

Model No.	LED No.	Voltage(A C/DC)	Power	Color	LED style	Flux(LM)	Beam angle	IP Rate
GNH-P56B-18*3W	18Pcs	12V	25W	Single/RGB	High Power	900Lm	30°/45°/ 60°	IP68
GNH-P56B-12*3W	12Pcs	12V	21W	Single/RGB	High Power	650Lm	30°/45°/ 60°	IP68
GNH-P56B-18*1W	18Pcs	12V	18W	Single/RGB	High Power	1300Lm	30°/45°/ 60°	IP68
GNH-P56B-S5*105	105Pcs	12V	19W	Single/RGB	5050SMD	1200Lm	120°	IP68
GNH-P56B-S3*315	315Pcs	12V	19W	Single/RGB	3258SMD/ DIP	1200Lm	25° /120°	IP68
GNH-P56B-S3*252	252Pcs	12V	15W	Single/RGB	3258SMD/ DIP	900Lm	25° /120°	IP68
GNH-P56B-S5*72	72Pcs	12V	36W	Single	5730SMD	2600Lm	120°	IP68
GNH-P56B-S5*48	48Pcs	12V	26W	Single	5730SMD	1700Lm	120°	IP68
GNH-P56B-S5*24	24Pcs	12V	13W	Single	5730SMD	900Lm	120°	IP68
GNH-P56B-COB35 W	1Pcs	12V	36W	Single	Bridgelux COB	3000Lm	120°	IP68
GNH-P56B-COB30 W	1Pcs	12V	33W	Single	Bridgelux COB	2600Lm	120°	IP68
GNH-P56B-COB25 W	1Pcs	12V	26W	Single	Bridgelux COB	2000Lm	120°	IP68
GNH-P56B-COB20 W	1Pcs	12V	20W	Single	Bridgelux COB	1600Lm	120°	IP68



4. Color control way:

(1)DMX RGB controller

Single color: White (Pure white, warm white, cool white), red, Green, Blue, Yellow

RGB Control way:5 Kinds of RGB color Change control methods

We have two types of controller for DMX

Step 1: Assemble lamp into housing/fixture/niche



Step 2:Connect DMX controller to power line as below diagram:

Step 3:Connect lamps to power line and DMX controller as below diagram

1-1 DMX 512 Control-first type

Input Voltage: 12-24VDC

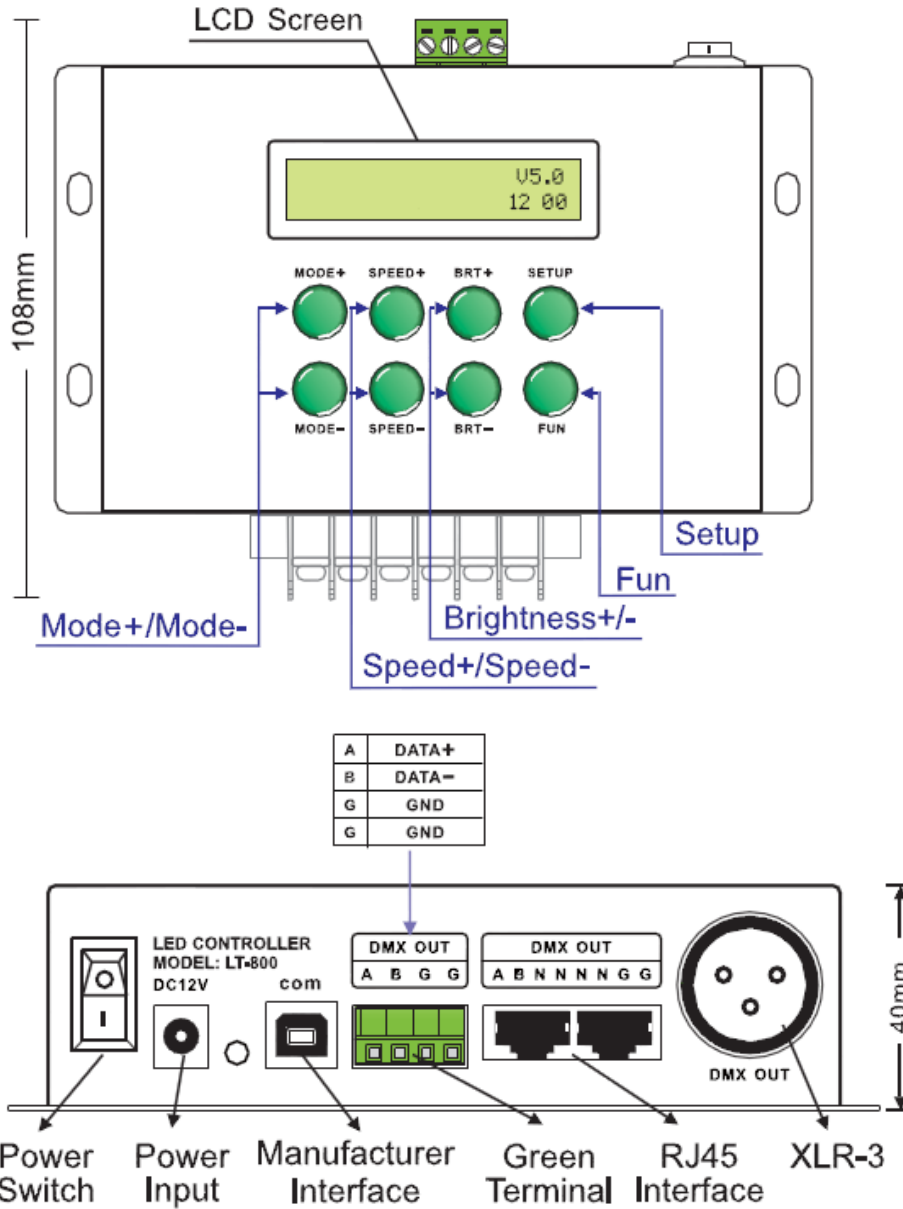
Output Signal: DMX512

Output Loop: 1 Port





Structure Drawing:



SETUP: Short press to adjust movement direction of effect; long press to enter the menu setting interface.

FUN: Short press to switch mode type;

Long press to enter the DMX addressing, meanwhile start learning ID process of RF remote.



Controller:

Setting Key

Short press to switch 8 mode types;
Long press to switch 4 mode directions.

On/Off

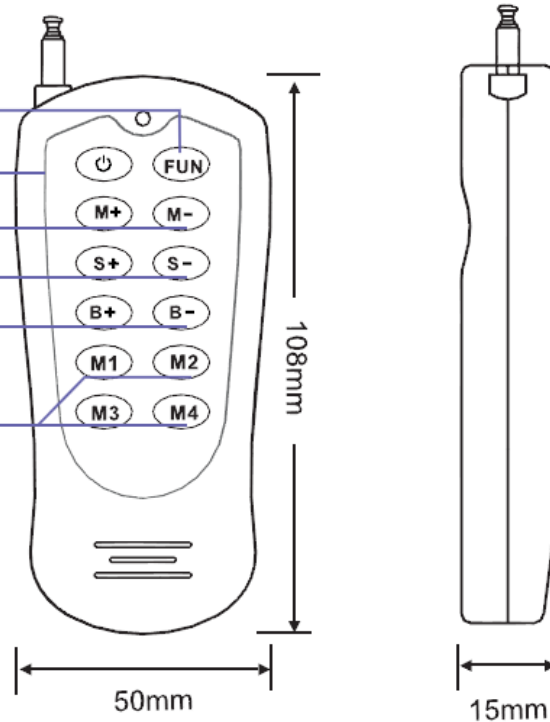
Mode+/Mode-

Speed+/Speed-

BRT+/BRT-

Scene-save keys

Press 2s to save



RF Remote Control

Buzzer on/off: Long press "On/Off" button on the remote.

ID Learning Method:



Long press **FUN** button on the controller for 2 seconds, there is a buzzer beep, keep pressing:

Learning ID: Press any key on the remote in 3 seconds.

Cancelling ID: Press any key on the remote over 3 seconds.

1-2: DMX 512 Control-second type





DMX Controller VCC connect to power supply DC+, GND1 connect to power supply DC-

5Wires: Brown wire connects to DMX controller"VCC"

Black wire connects to DMX controller"GND1"

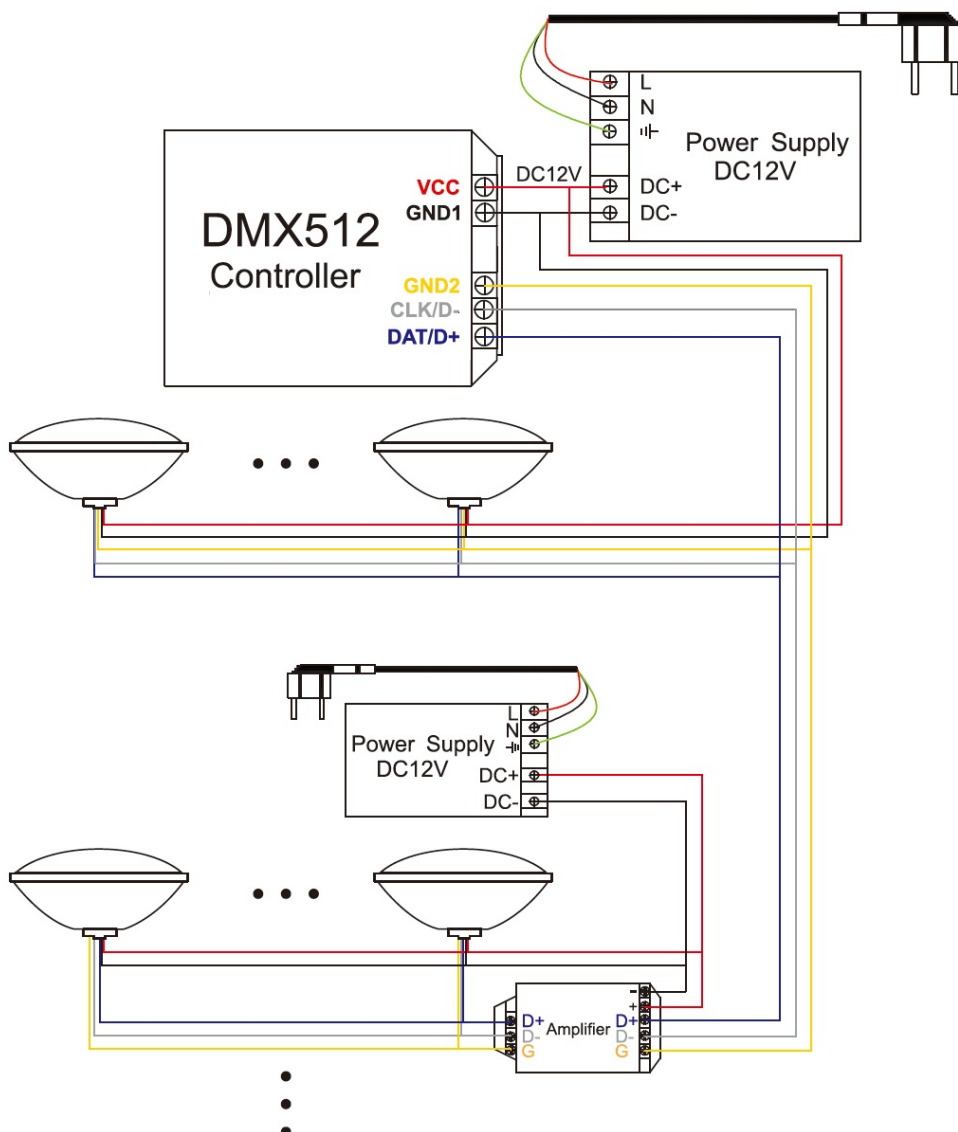
Yellow wire connects to DMX controller"GND2"

White wire connects to DMX controller"CLK/D-"

Green wire connect to DMX controller"DAT/D+"

1DMX512 controller could connect many lamps, in case of the signal is not strong enough after connect too many lights; you can use the amplifier to enhance the signal.

Diagram of DMX512 control way:





(2)Remote control

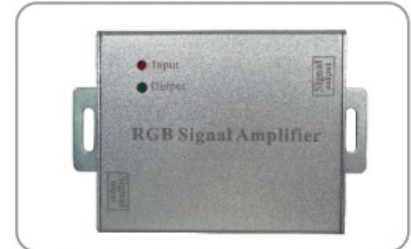
RGB Controller



Remote



Amplifier



Input Voltage:12-24VDC

RF Remote Distance:50M

Radio Frequency:433.92MHz

Remote controller Instruction:

Button no.	Function	Button no.	Function
1	On/off	7	Blue
2	Reset/(RGB=white)	8	R+G/G+B/R+B
3	Speed/Brightness+	9	Dynamic change: (R-G) /(G-B)/ (R-B)
4	Speed/Brightness-	10	Dynamic change: (R-G-B/Colorful Change
5	Red	11	Fading: R-G-B
6	Green	12	Colorful Fading

RGB Controller Instruction:

Button	Function	Button	Function
On/Off:	Switch on/off	Speed/Brightness+:	increase speed or brightness
Speed/Brightness-:	decrease speed or brightness	RGB Pattern:	change RGB pattern



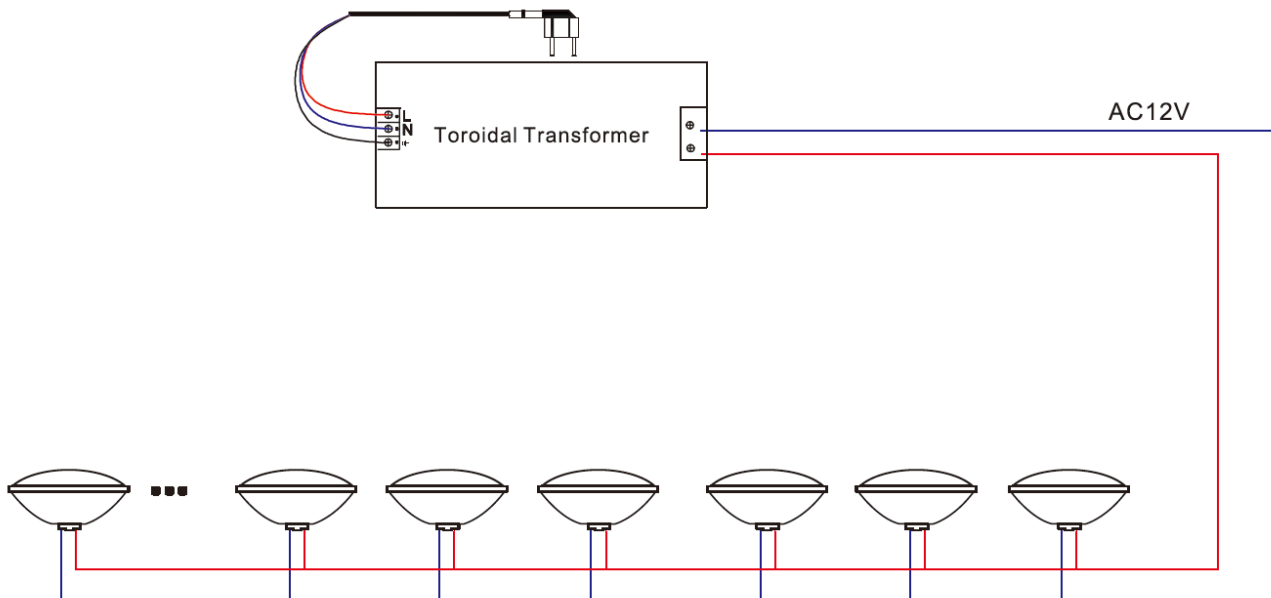
Remark: RGB signal is strong enough within 100 meters wire and 1RGB controller could connect 20pcs lamps, in case above 20pcs lamps, use Amplifier to enhance the signal, 1 Amplifier could connect 10pcs lamps, make sure the power wire is big enough to carry enough voltage (12V AC) in order to avoid voltage drop, see connection diagram of remote control way as below.

Simply connect live and neutral wires onto any one of wires of the lamp.

Step 1: assemble lamp into housing/fixture/niche

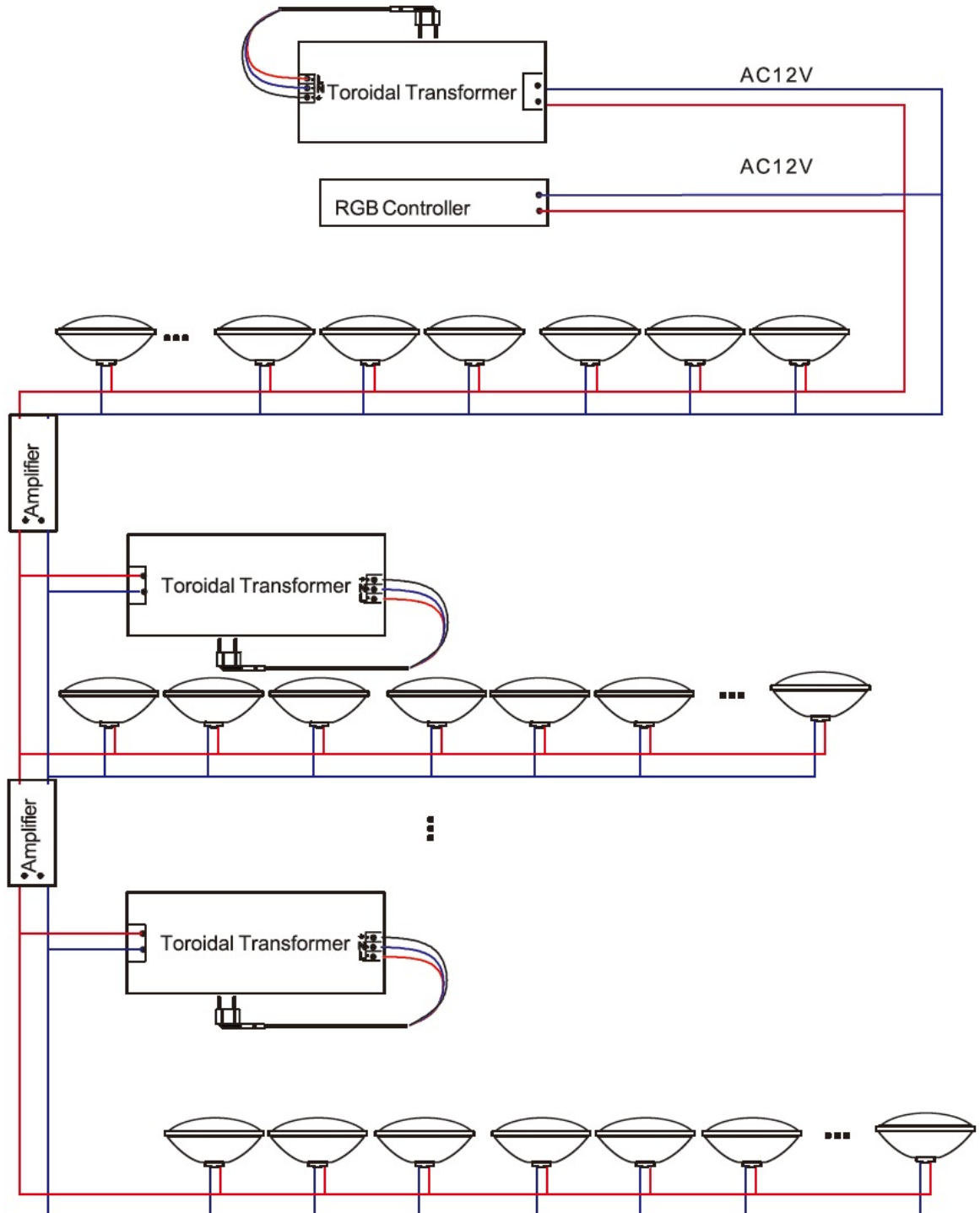


Step 2: Connect RGB controller to power line as below diagram





Step 3: connect lamps to power line as below diagram





(3)External Control

This control method means external control by LED RGB controller, it is 4 wires cable connection, could control RGB change pattern both by RGB controller manually and remote.

Input Voltage: 12-24VDC

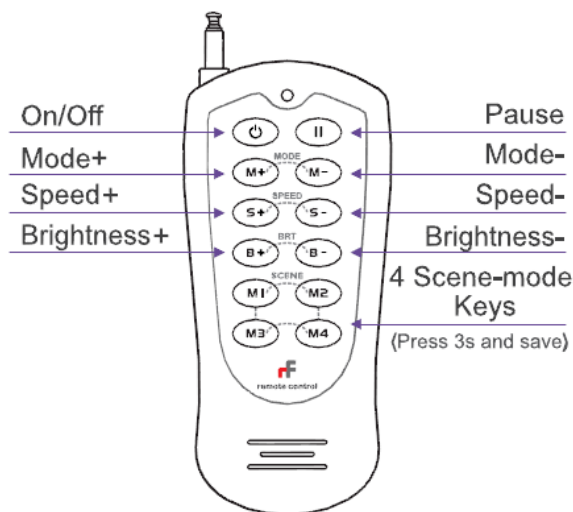
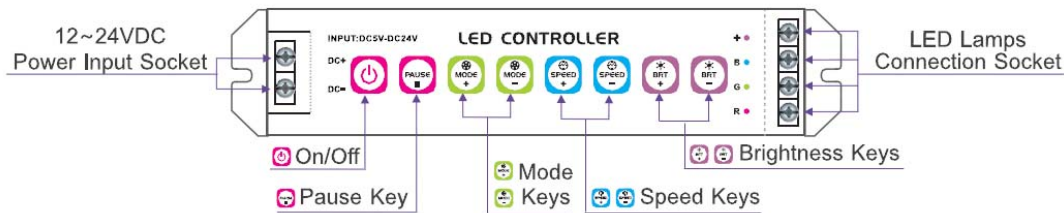
RF Remote Distance: 100M

Radio Frequency: 433.92MHz



Detail for function Key:

8 function keys on the receiver, which is corresponding to the first 8 buttons on the RF remote: namely **ON/OFF**, **PAUSE**, **MODE+**, **MODE-**, **SPEED+**, **SPEED-**, **BRT+**, **BRT-**.





Other Functions:

- A. Press PAUSE in 3S, the buzzer can be on or off.
- B. Press MODE+ for 3S to auto loop play all the modes.
- C. Press MODE- for 3S to 4 scene modes. Merely play the changing modes, the static color will be skipped.
- D. Press SPEED+ for 3S, all speed change is restored to default status.
- E. Press SPEED- for 3S, the current change is restored to default status.

ID Learning Method:

Learning ID: Press "On/Off" key on the receiver for 3S, the buzzer long beep and the green light will be on, release the key, press any button on the remote, when the green light turns off means activated.

Cancelling ID: Press "On/off" Key on the receiver for 5Sm the buzzer long beep, the green light will be on and flash once, meanwhile press any button on the remote, when the green light flashes several times means ID canceled (do not release the "On/Off" key during the process).

Step 1: Assemble lamp to plastic housing or stainless steel housing.

Connect 4 wires cable of housing respectively to V+,B,G,R screw terminals of lamp. Then assemble lamp into housing.

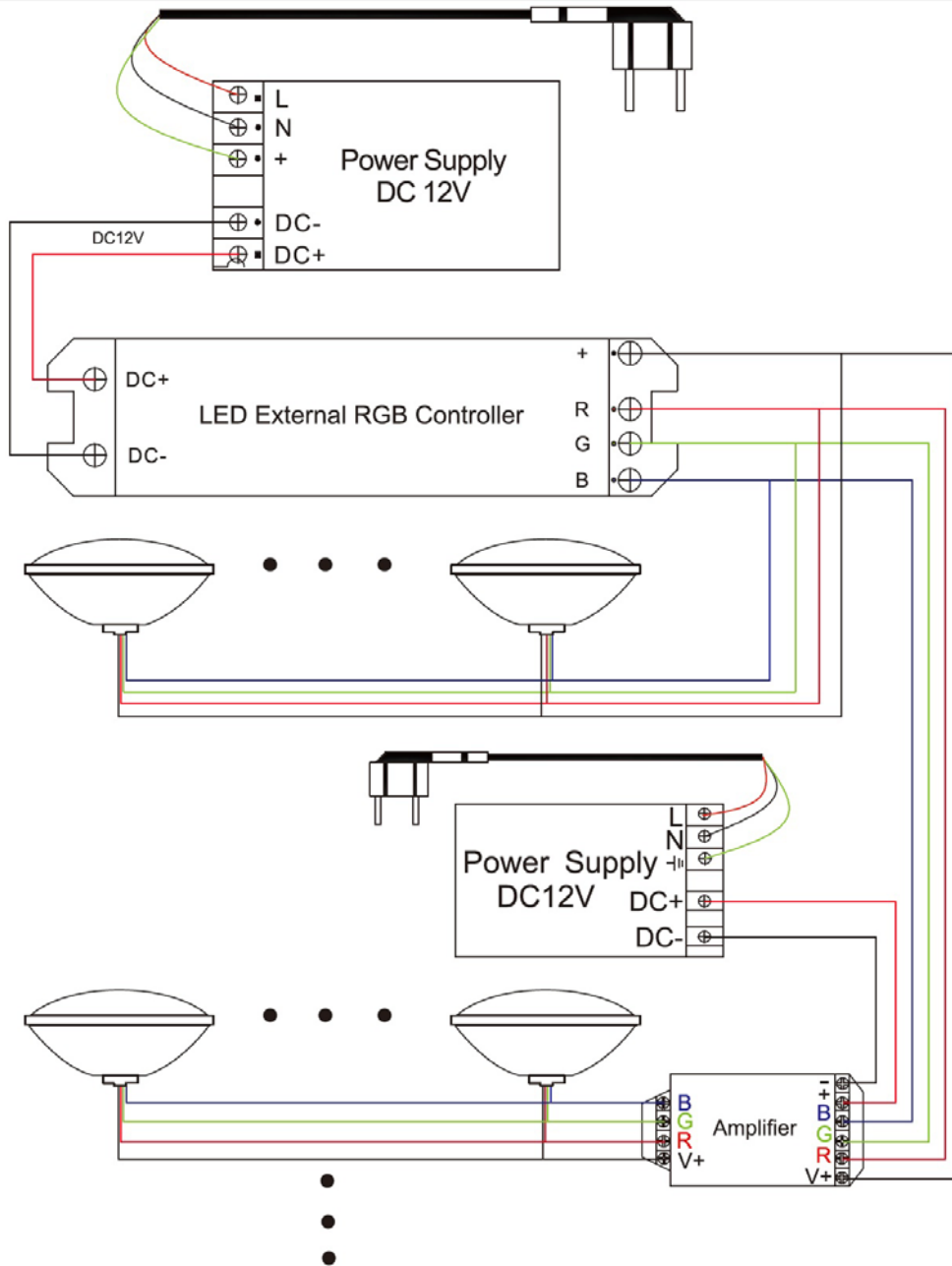


Step 2: Connect Power supply(12VDC) to one end(DC+, DC-) of LED RGB wire controller, then another end(+, G,G,R port) of LED RGB wire controller connect to 4 wires(V,B,G,R) of lamp as diagram below.

Remark: RGB Controller power is 200W, if total lamp wattage is over 180W, need to add Amplifier to enhance RGB signal.



Diagram of external control way:





(4)WIFI Control

Input Voltage: 12DC

Communication Standard: 2.4GHz, 802, 11b/g/m Protocol

WIFI Control Distance: 100M (Distance of cross-eyed)



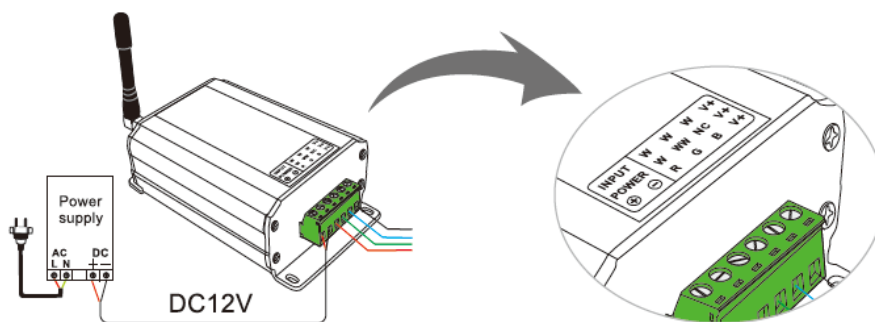
Step 1: Assemble lamp to plastic housing or stainless steel housing.

Connect 4 wires cable of housing respectively to V+,B,G,R screw terminals of lamp, then assemble lamp into housing.



Step 2: Connect Power supply(12V DC) to Input Power(DC+,DC-) of LED WIFI controller, then(V+,B,G,R) port of LED WIFI controller connect to 4 wires(V+,B,G,R) of lamp (with housing)

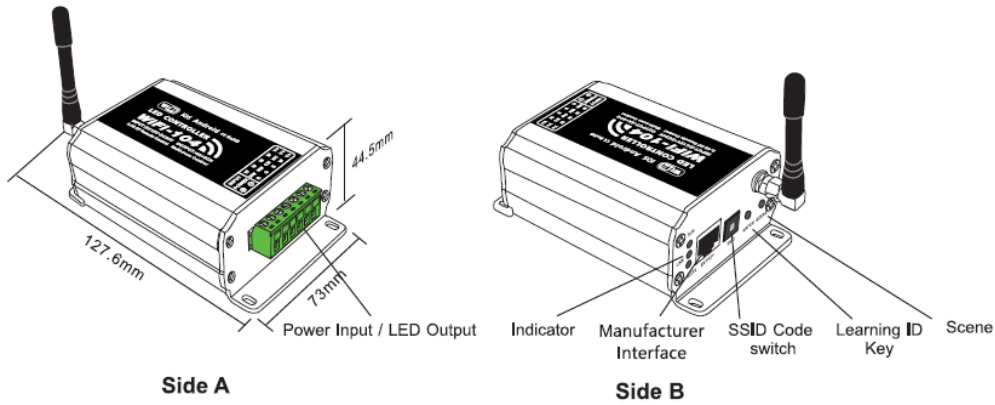
as diagram below.



Remark: WIFI RGB controller power is 100W, if total lamp wattage is above 100W, need to add Amplifier(150W) to enhance RGB signal.



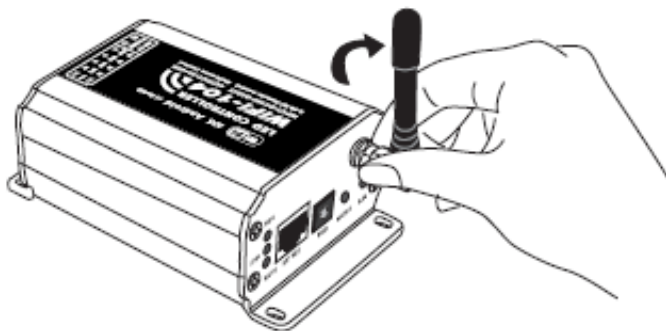
1. Configuration Diagram



2. Controller Operating Instructions

Install/Uninstall ANT

Clockwise to install the WIFI ANT, counter clock wise to take off.



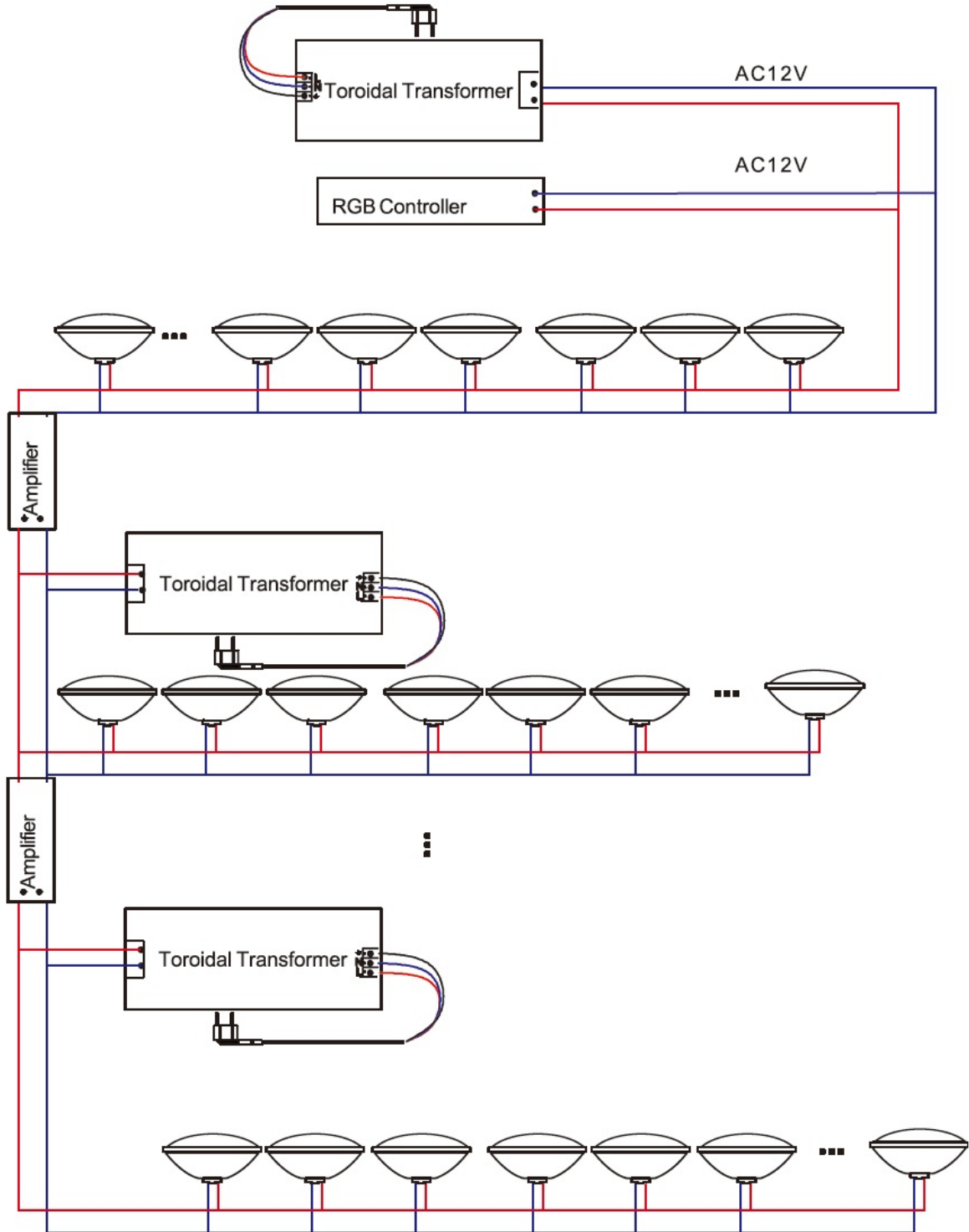
ANT installation instruction

Indicator Light Instructions:

Indicator	Instructions
Light	
Run	It flashes quickly about 25S during the electric initialization, Flashes once per second after initialization
Link	It keeps on when the mobile device connects to WIFI-104, and turns off when disconnected.
RX/TX	It turns on when the controller receives or transmits the WIFI data. Turns off in the free time.



Diagram of WiFi control way:





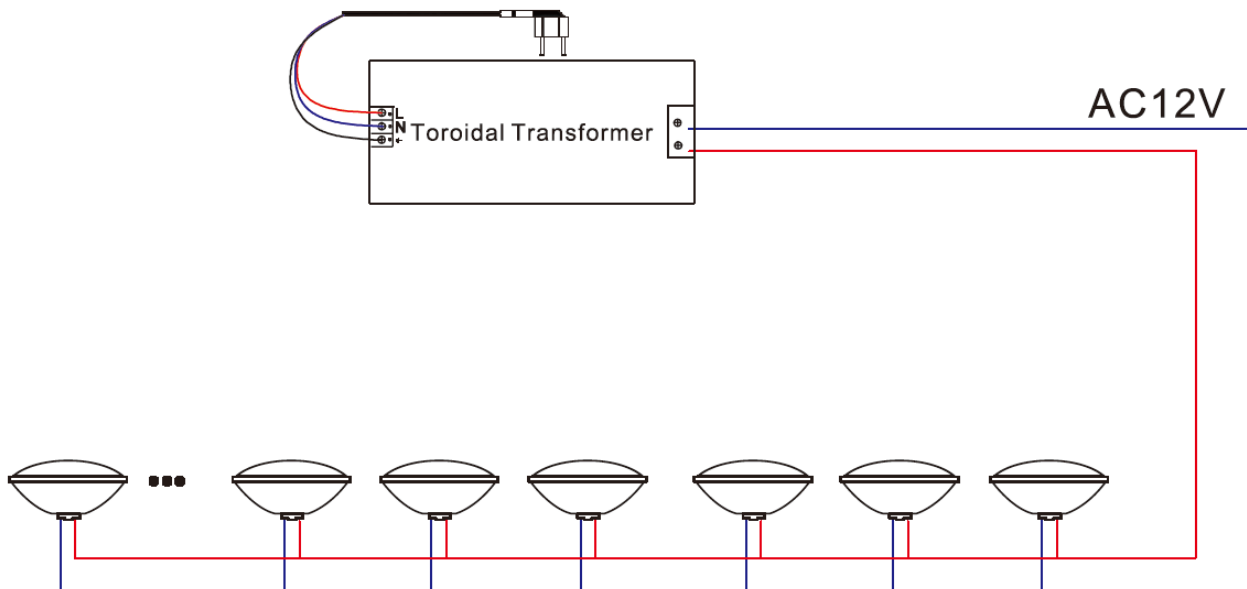
(5) Automatic Control & Single color

Simply connect live and neutral wires onto any one of wires of the lamp.

Step 1: assemble lamp into housing/fixture/niche



Step 2: connect lamps as below diagram:



(6) RF remot & switch control

Simply connect live and neutral wires onto any one of screw terminals on base of the lamp.

Input Voltage: 12-24VDC

RF Remote Distance: 50M

Radio Frequency: 433.92MHz





Instructions of The Remote Control Button

Key	Instruction	Key	Instruction
A	Mode change(14 programs)	C	Slow down in "fading effect" & "Dynamic color changing" mode-Reset the lamp by press 5S+decrease brightness in solid color
B	Speed up in "fading effect" & "Dynamic color changing" mode, increase brightness in solid color	D	Switch on/off by press 1-2S

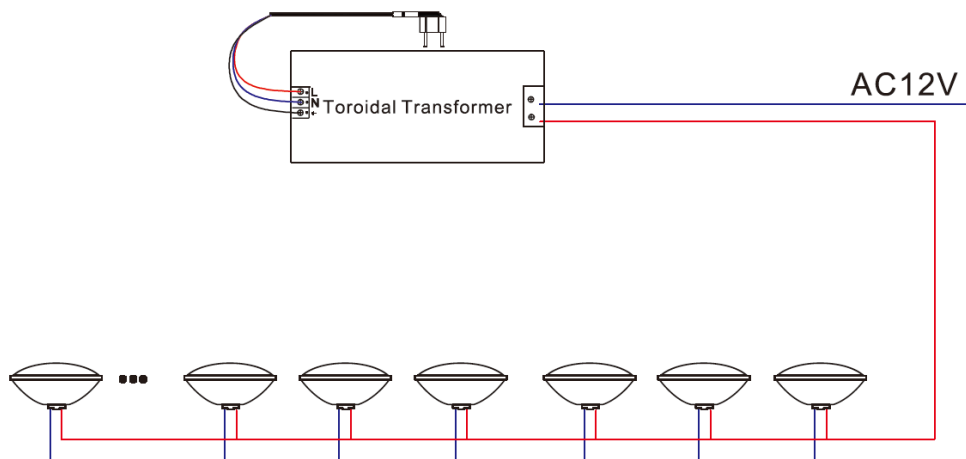
Note: Remote effective distance is 50 meters, to control lamps in distance of more than 50 meters, use switch control instead of remote control. Change mode by switch on/off.

14 RGB Programs: Red; Green; Blue; R+G; G+B; R+G+B; Dynamic change; R-G; G-B; R-B; R-G-B; Colorful R-G-B Fading; Colorful fading;

Step 1: assemble lamp into housing/fixture/niche



Step 2: connect lamps as below diagram





Greenough

Greenough Enterprises Co., Ltd.

LED luminaries Manufacturer and Exporter

5.Packing way:

Part No.	Package dimension
GNH-PAR56-	20 Pcs/Ctn ,Carton Size:64.5x40.5x40.5Cm ; G.W:25.00Kgs

6.Applications:

Application for PAR56 12V LED Swimming Pool Light:

Exterior structure; fountain; Pool, Spa space etc

