

# **LED full color lighting control system**

JM4 Sub-Controller

Rev. A/0

## **User's Manual**

United East Electronic Industrial Limited

Dear valued customer,

Thank you for buying UE LED full color lighting control system. The system can edit any desired program as you need, design lighting effect at will, download program promptly, run offline, transmit long distance signal (1.5m), RGB full color output control, high refresh frequency, each second can refresh maximum of 90 frames, change lighting smoothly, install easily and connect conveniently. It applies on various lighting decoration of city, scenery, road, bridge, building, entertainment area, outer door advertisement, and inside house lighting projects etc.

Before you use the LED full color lighting control system, in order to operate the system properly, please read this manual carefully.

UE LED full color lighting control system has applied a patent, with number **200720050043.6**

## **I.Important Safety Information**

The product uses ABS plastic outer case and flameproof PCB

1. Must be far away from flammable and explosive articles
2. Please use high quality of power supply, or it may cause controller to work wrongly and damage circuit
3. Be careful on waterproof protection

## **II.Package**

- 1、JM4 4 pixels sub-controller



## 2、Accessories

1、Master Controller



2、USB cable



3、Switching Power Supply



4、Power Cord



5、internet cable



6、Light Source



### III.Sub-controller Key Functions:

- 1、Work with main-controller JC1 as a decode output,
- 2、4 pixels 12 line outputs (each pixel contents RGB full color output),
- 3、Control signals connect in serial, easy to operate,。
- 4、LED indicator shows signal connection status, indicating alignment errors or short circuit problems,
- 5、Convenient connection with all kinds of LED light sources,
- 6、Be able to run separately with in-built program,
- 7、Partial light source or sub-controller failure will not impact other light sources and sub-controller operation,
- 8、Replacement of neon lighting controller.



Signal input/output

LED signal light

DC +/-



Connect LED

B

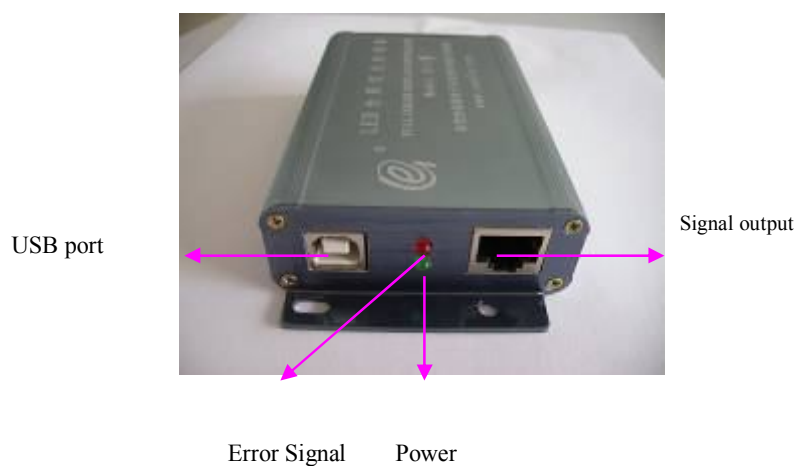
G

R

V+

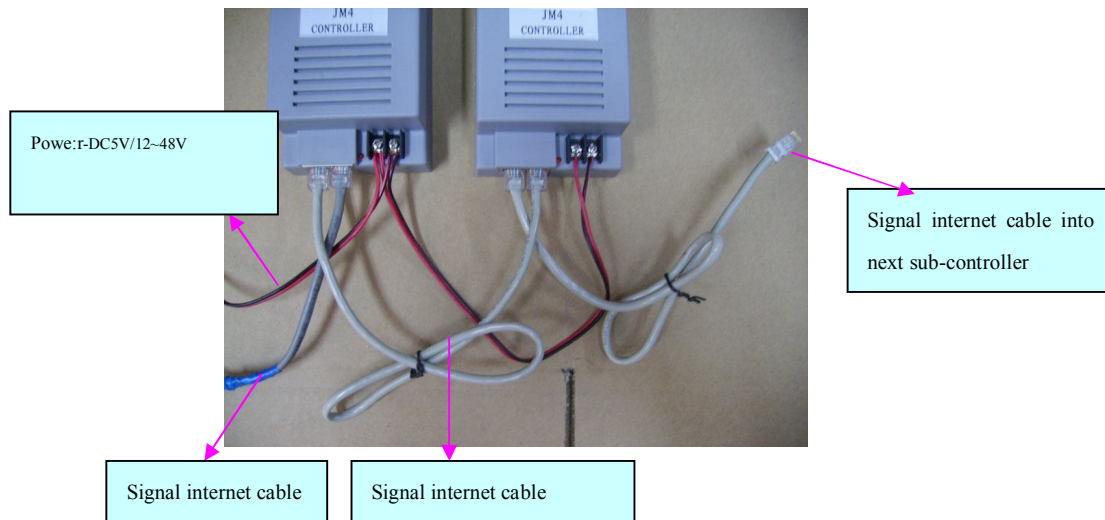
#### IV. Main-controller main functions:

- 1、 Need to work with Color Edit software,
- 2、 USB port download, run offline,
- 3、 Support single pixel and 4 pixels decode sub-controllers



#### V. How to use the 4 pixel sub-controller

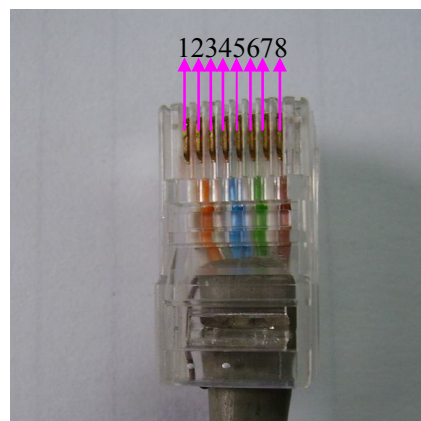
- 1、 Connect the Internet cable into the main-controller; the internet cable another port connect one JM4 4 pixels sub-controller of signal input port, see figure 1. Then connect the DC + / DC- on the JM4 sub-controller to one switching power supply; connect the sub-controller cables with light source by V+, R, G, B order. Connect the signal output connector on the first sub-controller to signal input connector on the second sub-controller, see figure 2, and connect the power and light source on the second sub-controller correctly, and so on. All sub-controllers can be connected as above steps and align the light sources in order. Power on, several of JM4 sub-controllers operate under the main-controller programming. The main-controller program can be edited and modified by Color Edit software, then downloaded from PC, see details in Color Edit software user's manual.



**Figure1**

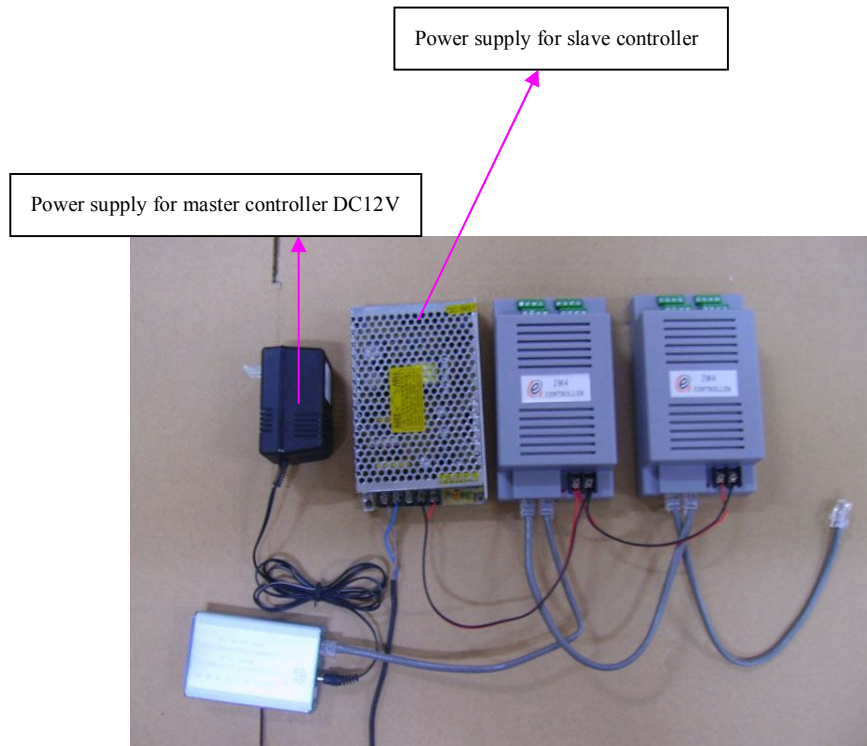
signal internet cable put in order way (according to 568B standard, both sides one one corresponding):

- 1: white orange
- 2: orange
- 3: white green (IN)
- 4: blue (D-)
- 5: white blue (D+)
- 6: green (DATA)
- 7: white brown (VCC)
- 8: brown (GND)



**Figure2**

## VI.alignment result



## VII.Specifications

### 1、circuit operation environment

- ①surrounding temperature:  $-10^{\circ}\text{C}$ — $40^{\circ}\text{C}$ ;
- ②relative humidity: 10%—90%。

### 2、Power supply

- ①Switching power supply ranges: AC 100—240V
- ②JM4 sub-controller voltage: DC  $5\text{V}/12\text{-}48\text{ V}\pm 0.5\text{V}$
- ③master controller voltage: DC  $12\text{V}\pm 0.5\text{V}$
- ④R, G, B line current of each sub-controller, max 4A

## VIII. Service and Maintenance

The company provides service based on stipulates of *the consumer protection law*, and under the sight of receipt / invoice.

- a) within 1 year of purchasing the product, and not damaged by the user, the company will repair the failed product freely
- b) damaged by improper usage or maintenance, the company will repair the product with a certain service charge
- c) please contact UE company or the distributors when having quality problems
- d) any updates on the manual will not notice further, if you have any questions please call the company phone directly

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